



MAGAZINE

PRICE TWOPENCE

MARCH 1952



The *I.C.I. Magazine* is published for the interest of all who work in I.C.I., and its contents are contributed largely by people in I.C.I. It is edited by Richard Keane and printed at The Kynoch Press, Birmingham, and is published every month by Imperial Chemical Industries Limited, 26 Dover Street, London, W.1. Telephone: REGent 5067-8. The editor is glad to consider articles for publication, and payment will be made for those accepted.

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FRONT COVER: *Ardeer Factory Cadets' Pipe Band*, by J. Brooks ('Ardil' Dept.).

OUR CONTRIBUTORS

N. P. HARVEY joined the Publicity Department of Plant Protection in 1944. His new book *The Rose in Britain* has sold over 5000 copies within six weeks of publication. His main hobby is trying out in his own garden new roses from Europe, America and of course England.

SIDNEY ROGERSON, Publicity Controller of I.C.I., is a writer of distinction. He made his name with *Twelve Days*, a book of war experiences published in 1933. His last publication is *Both Sides of the Road*, a book on farming recently chosen as the book of the month by the Country Book Club.

NORMAN VIGARS is a Fleet Street feature cameraman. He saw service during the war in the Western Desert and Italy with the Royal Horse Artillery and in Europe as an official Army cameraman. He prefers assignments where there are plenty of people with a story to tell.

STANLEY A. WOOD, Chief Colour Adviser of Paints Division, joined the Company in 1934. Concentration on colour for twenty-six working years may account for the pleasure he gets at home from designing linocuts in black and white. He says his spare time is occupied with gardening and his small daughter.

ARDEER
RECREATION
CLUB

By Norman Vigars

Ardeer Recreation Club is not the biggest of the Company's many clubs, nor is it the oldest. But it can claim to be among the most flourishing and has the highest proportion of members to employees of any. Here a well-known Fleet Street camera-man gives you his impressions both in picture and in writing of the club's lively indoor activities.

THERE is a bus stop at the top of the hill by the main gate of Ardeer Recreation Club. The conductors shout "The Rec.!" to passengers getting on and off. Most evenings and every Saturday there are a lot of passengers. When a place gets itself included in a busman's repertoire of locations it can truly say it has arrived.

The club, a converted manor house at the end of a well-laid-out drive, forms a major part of industrial welfare of the Nobel Division of I.C.I. The workpeople of Stevenston, Saltcoats and surrounding districts have made the club a focal point in their leisure life in a way that would probably surprise the original founders. Over its twenty-two years of existence it has become part of the way of life to many young and not so young who work at the Ardeer factory of I.C.I.

Afternoons see the pensioners of the Company in residence with their dominoes, indoor or outdoor bowls and cards. By



ARDEER HOUSE, the club premises, was originally a manor house belonging to the well-known Ayrshire family of Warner. Stained glass windows with the family crest still survive.

mid-evening a visitor would quickly come upon a wide range of activities, from plain drinking and gossip in the bars to the enthusiasts who pile up their tricks in the evening whist drives. At the back of the club-house, where extension buildings have been added, can be heard the pipes and drums of the Army Cadet Band attached to Ardeer. In a nearby hut the crash of small-bore rifles comes from one of the two ranges (one indoor and one out) that have become yet more popular since the war. A quiet hum of machinery from the model-making section and the click of bat, racket and cue comes from a dozen different indoor games in the surrounding rooms. On Saturday afternoon rugby fifteen, football and men's hockey, and ladies' first and second hockey elevens do battle on the club's behalf and each year the trophy cupboard in the main hall gets more crowded.

Like most organisations of its kind, it is run on traditional

democratic lines. A permanent general secretary and his staff attend to the day-to-day running of the club, while honorary officers and an elected council arrange policy, planning, new ideas, etc. With over 4000 members new ideas are always forthcoming. Three years ago it was agreed that the Bowling Pavilion was too small, and members volunteered to build an extension. Building projects were as difficult to implement then as now. Once licences had been arranged and the work had progressed beyond the planning stage, the members rolled up their sleeves and built. Materials had, of necessity, to be mainly second-hand. Taking part in this voluntary labour effort were the pensioners.

These retired members of the firm—all over 65 and some over 70—willingly claimed a good deal of the burden because they had more time to spare, and they also formed a keen section of the Bowls Club.



ARMY CADET PIPE BAND, under the direction of Acting Pipe-Major Alec Mclennan. He is shown (left, facing camera) counter-marching at an evening practice.

A CLOSE THING AT INDOOR BOWLS. On the "green" are John Fulton, James Clasper, John Muir, Robert Hunter and T. H. Hamilton. These men have a total of 184 years' service behind them.



PENSIONERS' AFTERNOON DOMINOES. Left to right: Hugh McGhee, Robert Hunter, Robert Adair, W. Hamilton and David Donaldson. All are over 70 and have had long service with the Company. BELOW: Badminton practice as demonstrated by Research laboratory assistant Janette Frew.

Between dominoes they quietly chatted to me about one of the little jobs they did—cleaning and reshaping over 15,000 old reclaimed bricks; of drawing thousands of nails and then replanning all sizes of salvaged timber.

"I enjoyed that six months," said one. That was the time taken to complete the job. It can be seen in the picture series as one part of the room where the whist drive is progressing.

Get the veterans talking during that magic half-hour in the late afternoon when dominoes and bowls are finished, and you will hear tales of days in the factory before 1914. Tales of early football and billiards triumphs when the club was first founded and began to make its name in local sport.

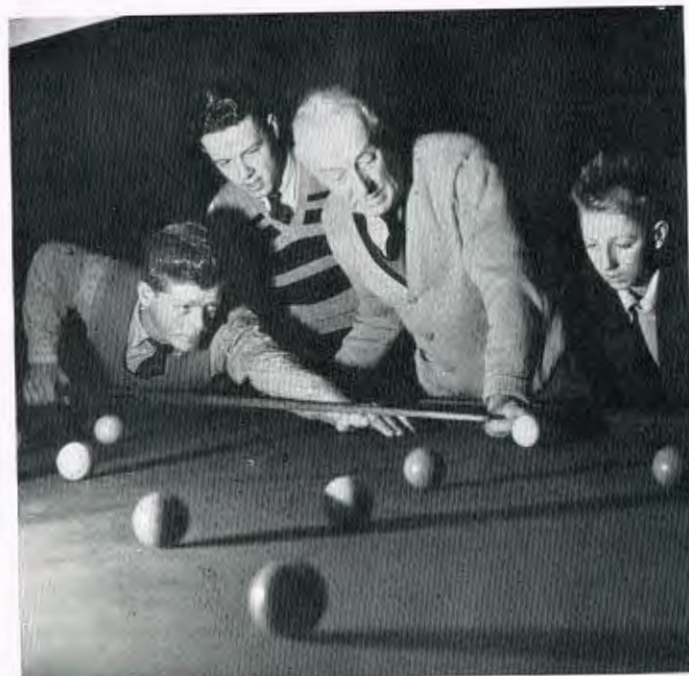


Some of the best anecdotes come from 79-year-old John Gourley, who instantly records the date he started work at Ardeer as "the year before the old Queen's Diamond Jubilee." It is he who recalls the visits of Alfred Nobel and many foreign and imperial dignitaries of the day; of driving these visitors round in a horse-drawn buggy. He thinks the club a grand place for the older folk to spend their leisure hours of retirement, but also has a good word for the younger people who form the bulk of the membership. He and some of the others of his time do not always agree on comparisons of football, but friendly arguments of this sort are inevitable when old and young meet anywhere.

It would be hard to record the



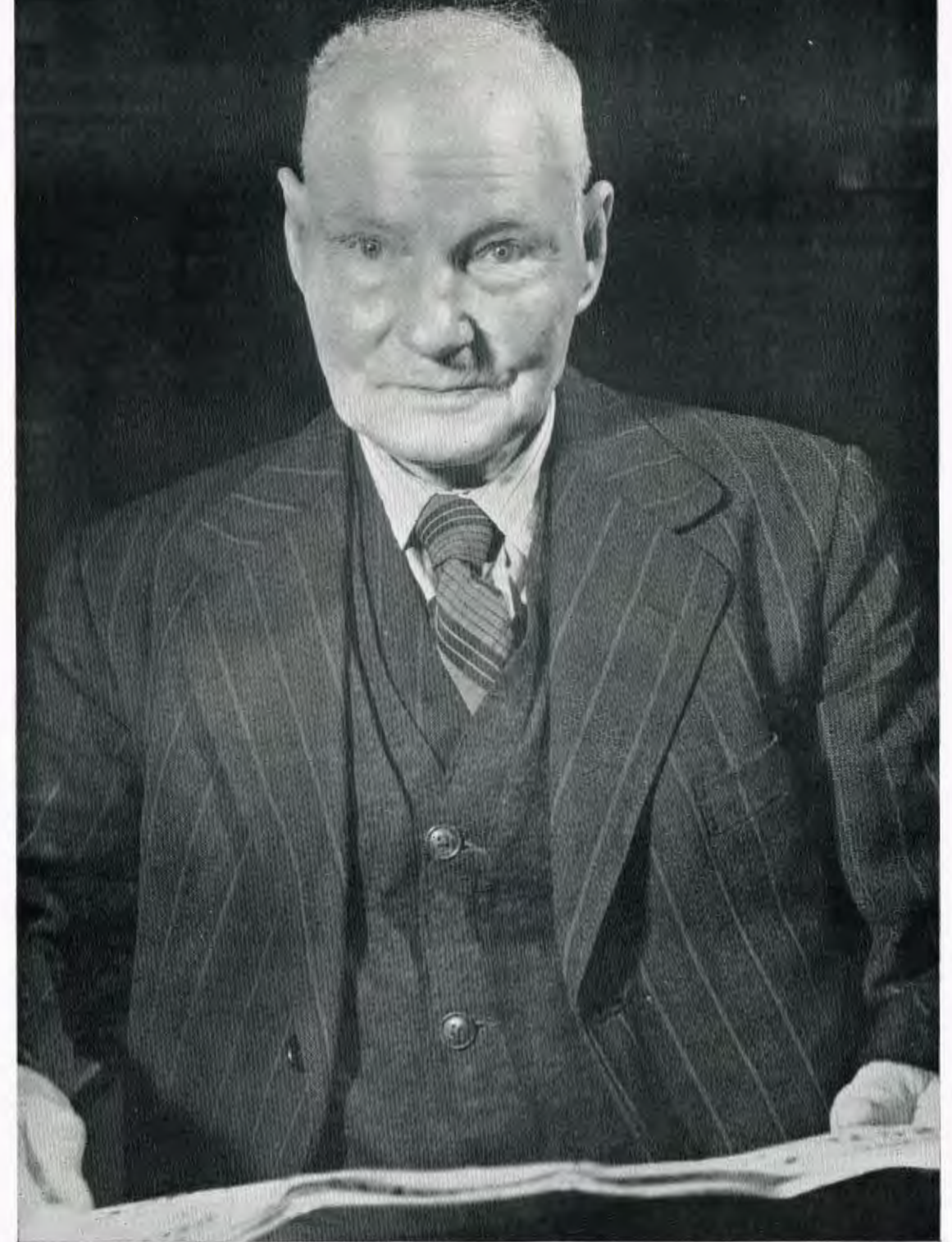
AT THE INDOOR RANGE are 22-year-old student William Young (right) with James Young, his father. James Young, a foreman in Acids, has been secretary and guiding light of the rifle club for over twelve years. He has been three times international shot for Scotland and also Ayrshire champion.



YOUNG SNOOKER FANS get instruction from veteran player (sixty years at the game) Jim Figgins, who two years ago held a British national breaks championship.



A GAME OF WHIST is enjoyed in the bowling pavilion. Ardeer is proud of its pavilion, to which an extension was recently built entirely by voluntary labour.



GRAND OLD MAN of Ardeer is 79-year-old John Gourley, who joined the Company in 1886. With over 51 years' service, he has many reminiscences. He recalls the time when he drove Mr. Nobel and some of the directors in a horse-drawn buggy on a tour of inspection.

exact number of courtships among the local folk that have matured at Ardeer Rec, but it is no uncommon sight to find a man at billiards, his wife at whist or in amateur dramatics, and sons and daughters sporting the Gay Gordons at the evening dance.

Some members enjoy giving their spare time to passing on skill and knowledge to a younger generation. James Young, who has been thirty-three years with the Company, has held

the secretaryship of the Rifle Club since before the war. Himself an international shot and frequent visitor to Bisley, he finds a steady stream of disciples to the ranges—"Some very keen but erratic," he says, "and others promising."

It is the pleasant, easy combination of youth and age, combined with the enormous amount of hard work behind the scenes, that has put Ardeer Recreation Club on the map in that part of the west coast of Scotland.

Information Notes

MAKING COAL GO FURTHER

By Gordon Nonhebel (Technical Department)

Coal today is a valuable national asset: and in the making of electricity I.C.I. can claim to burn coal twice as efficiently as the British Electricity Authority. This is because with us the steam that drives the turbines can be used a second time—for process work and for heating.

JUST as the farmer is always striving to make two blades of grass or corn grow where one grew before, so industry is constantly striving to make each ton of coal do the work previously done by two. In this effort I.C.I. may justly claim that its larger factories are in the forefront; much is also being done to improve the level of efficiency of the small units.

The problems of industrial fuel economy may be divided into efficient use of coal in the primary coal-using equipment (which is mostly steam-raising plant), efficient use of the steam for generating electricity and other forms of power or for heating, and choice of process and equipment to produce the required products with the minimum use of electricity, steam and other forms of heat.

When coal is burnt under boilers part of the heat from the burning coal escapes from the boiler proper where steam is made and passes out in the hot flue gases. These gases can be further cooled (thus recovering more heat from the original coal) by using them first to heat the water going into the boiler and then to heat the air which is blown into the furnace to burn the coal. In this way the amount of heat recovered from the coal is increased substantially.

The efficiency of all the large high-pressure boilers in I.C.I. measured over the last few years is 83% and that of the best is over 86%—probably better than that of even the best public supply power stations, because of the steady continuous running and of the care and attention given by those operating the plants. The efficiency of the smaller and lower-pressure boilers in the Company is somewhat lower at 75%, but in these it does not pay to install such elaborate heat-saving equipment, and it must be remembered that many of the boilers are over thirty years old. This figure must also be compared with that of the old-fashioned simple hand-fired boiler to be found in small works up and down the country: these seldom have an efficiency much over 55%, which is not much better than the efficiency of a modern closed domestic hot water boiler.

It is, however, in the production of electricity from steam that many factories make some of the most spectacular savings of fuel. It is necessary, in order to understand this, to consider some of the fundamental physics of the production of power by steam.

It is readily understandable that more power can be obtained from steam the greater the pressure and the greater the temperature of the steam. Unfortunately about three-quarters of the heat put into water to make high-pressure superheated

steam goes to boil the water, that is, to convert the water from the liquid state into the gaseous state, steam. This is called the latent heat. The lower the pressure and temperature, the smaller the proportion of the heat in coal that is converted into energy producing steam. The reason is that when the steam is used in an engine or a turbine the fraction of heat used to boil the water cannot be converted into power.

In an ordinary power station this heat is wasted by passing the steam after it has been through the turbine into a condenser, where its latent heat is given up to cooling water. The condensed water is then pumped back to the boilers. Even with various heat recovery devices the proportion of heat in coal which can be converted via steam into electricity in the most up-to-date condensing power stations barely exceeds 30%. In practice the average efficiency over a year of the best British power station is still just below 30% and the average for all British power stations during 1950 was 21½%; 2% of the electricity made that year was made in old plant and during peak hours with an efficiency of less than 12%. These figures show, incidentally, how wasteful in coal is the use of electricity for house heating during peak hours, since even the open coal fire has an efficiency of 20% and the modern openable stove an efficiency of 45%.

In many factories, and especially in chemical and food-processing factories, great quantities of steam are used for heating and boiling liquors, drying, and so on. Some factories obtain this steam from low-pressure boilers and buy electricity from the B.E.A. From the explanation given in the preceding paragraph it will be seen, however, that if steam from the boilers is passed through turbines to generate electricity and then to the factory for heating and similar process work, the latent heat mentioned is used usefully instead of being thrown away to a river or water cooling tower. The steam is thus made to do work twice.

Of course, the electricity is not obtained for nothing—but apart from inevitable heat losses from the hot machinery and piping, all the heat equivalent of the electricity produced from the steam in these pass-out turbines is obtained at 100% efficiency. Since the boiler efficiency is likely to be 75% and the heat loss less than 10%, the efficiency of electrical generation in this sense is about 67%, or over 2½ times the efficiency of the best B.E.A. power station.

In practice, in order to obtain reasonable quantities of electricity and so cover the cost of the capital and labour required for the extra machinery, it is usual to use boilers

working at a higher pressure and temperature than those which would be used merely to supply steam for process. In fact, in the new I.C.I. plant at Wilton the boilers produce steam at 900 lb. per square inch and 900° F., which are the standard conditions for many B.E.A. power stations, and the conditions at Billingham are somewhat similar. Not all this steam goes straight from the turbines for heating; some of it is piped to the factory to drive machines, and these subsidiary turbines in turn pass out steam for heating, so that it can be said that the steam is then used three times.

Another way of making coal go further is to use steam in what are known as multiple-effect evaporators. In this form of plant steam is used to boil and evaporate a solution in one vessel, and the steam boiled off, instead of being allowed to go to waste in the air or in a water condenser, is piped to a second evaporator kept at a lower pressure by means of a small pump. A few factories have up to six evaporators arranged in series in this way, each feeding the next down the line and the last feeding very low grade steam vapour to a condenser.

COLOUR DOWN THE AGES

A Review by Dr. C. M. Whittaker

Last year Dyestuffs Division published the story of the development of natural and synthetic dyes in a book entitled In Search of Colour. Dr. C. M. Whittaker was at one time chief colourist at Read, Holliday and Sons Ltd.

IN 1672 the great French Minister Colbert wrote: "All visible objects are distinguished and recommended by colours: but for purposes of commerce it is not only necessary that the colours should be beautiful but that they should be good and that their duration should equal that of the materials they adorn."

This epitomises the object of the dyemaker and dye user today, though it is not always realised that colour is the first salesman of textiles to the ultimate consumer. It does not matter how skilfully a textile is woven or knitted, it will not sell if inappropriately coloured. Colour therefore occupies the key position in the textile industry.

In Search of Colour traces the development and use of colours from the limited range of early civilisation to the 2000-odd chemical dyes of today. Yet so complicated are the demands made on the modern colour-maker that even these 2000 colours fail to satisfy all requirements, and there is still scope for much research. The volume is most suitably divided into research, manufacture, standardisation and customer servicing. These very headings give an indication of the vast organisation needed before a new colour can be offered to the colour-user and of the tremendous care required if continuity and regularity of supply are to be maintained.

In my opinion the choice of symbols in the section entitled "Chemistry is a form of architecture" is most unfortunate. Surely it would have been equally simple to use H instead of O for hydrogen atoms. The draughtsman may reply that he drew a circle, but every chemist will initially read it as oxygen. In addition O is used for a monovalent atom, while oxygen is bivalent, so that most chemists will get a shock when they see on page 23 a graphic formula for benzene drawn as containing six monovalent atoms of oxygen.

As one who was once concerned with the evaluation of new compounds produced by the Research Department, I think

The third method of saving fuel is to improve the process: this has been done by attention to dozens of details in existing plants by adding heat-recovery equipment and by building new plants to make the same product by better chemical processes or with improved equipment.

Some remarkable savings have been achieved in this manner. One works making a large number of products reduced the heat equivalent of the coal, gas and electricity used in the whole factory by 30% per unit of product between 1947 and 1950, and many others have made reductions between 10% and 60% by minor additions and alterations to individual plants. Similarly, two cases are known where new and larger plants in the heavy chemical industry consume per ton of products only 60% of the total energy used by their predecessors. More of such new plants will be coming into production in the near future, and more still are in the design stage.

All these are achievements of which we can be proud, but it is necessary to be very watchful for waste such as that caused by leaks, machinery running idle and unnecessarily high temperatures for the job.

more stress could have been laid on the difficulties and responsibilities of this job. I looked upon it as my greatest responsibility because a new product may show outstanding value in just one use. I stress this knowing that in the distant past I rejected brominated natural indigo long before the brominated products from synthetic indigo were marketed.

I was particularly pleased to note the point made on page 36—a point which I have never tired of stressing—that a tremendous amount of valuable work on colour may be done with simple equipment. Dyehouses are liable to be scared of installing a laboratory when they read of electron microscopes and Hardy spectrophotometers, both of which are admirable in an organisation like the Dyestuffs Division but not necessary in the average dyehouse laboratory.

The comparison of colour in nature and colour as dyes is interesting. Nature never produces a solid shade: in fact that great British landscape painter Constable has put on record his opinion that no two leaves in nature are alike. But the dyer knows to his cost that unless he produces solid colours on his materials he will be mulcted in damages. He can therefore never imitate nature's colourings.

There are one or two inaccuracies, though of no serious consequence. An error has crept into the plate of "The Evolution of the I.C.I. Dyestuffs Division" on page 18. Morton's Sundown Fabrics should read Morton's Sundour Fabrics—a world-famous trademark. And on page 10 are the words "the essential principle of woad being indigo." Like Professor Joad, I should say it all depends on the definition of "essential principle."

The book carries the imprint of The Kynoch Press, which to all who know their other productions is a guarantee that the printing, both colour and text, in this instance reproduced by offset photolithography, and binding are of the highest excellence.

THIS ENGLAND

By A. B. M. Whitnall (Chief Entomologist, A.E. & C.I.)

IT was my first visit to England. From the ordered rush of Southampton and Waterloo, through which I was guided by my wife, I drove in a London taxi to relatives in Chelsea. After a warm welcome and meal it was suggested that we should visit an office of the Ministry of Food.

Here we played musical chairs in the queue and finally came before a woman clerk. When she heard that I was a South African visiting Britain for the first time I was asked to present my passport. From this certain details were copied on a card. I was asked to sign this, and when completed the clerk picked it up, folded it, and said "Would you like to keep that?" "Yes, thank you very much, I would," I said, thinking how kind the clerk was, and that this national registration card would be a worth-while souvenir.

Had it not been suggested in the Mother of Parliaments recently that these cards should be withdrawn? I put the card carefully in my wallet. I was recalled from my reverie by "Would you like to sign there?" Yes, of course; and I signed on a dotted line and came away with ration book, part of which I still have but cannot possibly understand. Women, including my wife, understand it. One cannot help but admire the British housewife for mastering this masterpiece.

Our first week-end in Britain was a long week-end—Whit-sun—which we spent with friends in glorious Kent. There

I first saw bluebells in the woods and heard a cuckoo call, two experiences I will never forget. On a Tuesday in May I began my programme of work and was warmly welcomed at a pleasant luncheon in London. Central Agricultural Control, Plant Protection and our own African Department of I.C.I. all welcomed me in their own pleasant ways.

At the African Department the efficient secretary said: "Oh, Mr. Whitnall, would you like to have your programme?" "Yes, I would, thank you," I replied. "Would you like to meet Mr. McKenna?" "Yes, thank you," said I. I was welcomed by Mr. McKenna, who said "Would you like to sit there?" It was just where I wanted to sit. That night my wife and I had dinner at a restaurant, and as I got up from the table the waiter said, "Would you like to pay at the counter, sir?" I paid at the counter.

The first laboratory I visited was the I.C.I. laboratory at Hawthorndale. The visit entailed going from Paddington to Maidenhead by train. At the barrier at Maidenhead station the ticket examiner said "Would you like to give me your tickets?" I had been wondering when the tickets would be collected, so gladly handed them over. The chauffeur who met us said "Would you like to go to Bray first, sir, and leave

your bags there?" I said that I would, not knowing where Bray was, but thought it a good idea to leave my bags and my wife at the Hind's Head Hotel before going on to work.

At Hawthorndale the secretary welcomed me with a smile and said "Would you like to come upstairs and meet Dr. Tanner?" It was Dr. Tanner I wanted to see, so I gladly went upstairs with her. Said Dr. Tanner, "I'll just call Mr. Thomas. In the meantime, would you like to sit there?" He had indicated a real comfortable armchair, so I sat in it.

At Hawthorndale I met Miss Bradford, a South African entomologist and old colleague, who had gone there on exchange from Somerset West. I thought that she would speak the same language as I did, but when she said "Mr. Whitnall, would you like to come to see the mites in the glasshouse?" I had to ask "What is the meaning of this 'would you like to'?" I explained that I had struck it wherever I had been during the six days I had been in Britain. Miss Bradford laughed and said it was just the sort of thing I would spot, but she did not explain the meaning.

I came across this saying on many other occasions during my visit but did not make undue enquiries. I was told, however, that the people in the north were very different from those in the south. When I got away from the agricultural south to the industrial north and my wife and I were entertained to dinner in Chester by two Scots and their wives, I was shaken when our host said to his wife "Me dearr, would ye like to sit herre?" I asked Mrs. Pirie just exactly what it meant and was answered by Mrs. Coyne, "It means you jolly well sit here or . . ."

Our long leave came to an end all too soon. A week at Keswick among the English lakes, which surely make up some of the most beautiful scenery on earth, sped by as a day. The lochs of Scotland also have their beauty and the people their peculiar ideas. Our bus driver was a Scottish Nationalist who wanted Home Rule Now. It must have been men like him which made the Suid Afrikaner remark

"n Skotsman is die beste soort Engelsman!"

We were soon back in London, where people, policemen, taxi drivers and bus drivers are so patient with each other. There was so much to see. The spirit was willing, but the body said no. And so we came to Waterloo and Southampton and the customs officers. "Could I have your national registration card, sir?" I proudly produced it from my wallet. He said, "Thank you, I'll keep it now." "But I was asked if I would like to keep it!" I protested.

There is much to learn about that island and its people.



The Editor's Postbag

Readers are asked to help make a success of this Correspondence Supplement and send letters for publication to the Editor before the 17th of the month. Letters should be of general interest, non-political, and as brief as possible. They should not deal with subjects for which there is special machinery for dealing elsewhere, such as trade union matters or matters which should properly be dealt with in Works Council.

Do We Lag Behind in Sport?

Sir,

While watching with admiration the stirring efforts of Christopher Winn and Stephen Fry (this almost certainly must be the first occasion on which two employees of the same organisation have played on opposite sides in an international match) in the recent England v. South Africa game at Twickenham, I was asked by a friend if I.C.I. ran any representative Rugby sides. I was forced to reply that to the best of my knowledge no XV truly representative of I.C.I. as a whole had ever taken the field, nor had any efforts ever been made to raise such a team, and this moreover applied to all other sports. Surely with an organisation of our standing this is wrong.

Many smaller firms, like the banks and the oil companies, play a very large part in the amateur sport of this country and their teams more than hold their own with all but the highest company. Indeed, Lensbury (the Shell Petroleum Co.'s recreation club) send a first-class eight to Henley each year, and also with success to several regattas on the Continent of Europe, while their cricket team is one of the strongest club sides in London.

If such a standard can be achieved by smaller firms, cannot I.C.I. endeavour to improve on their rather dismal record? With the exception of the fine Billingham Synthonia football team, who have several grand performances in the F.A. Amateur Cup to their credit, it would seem that there are no I.C.I. teams capable of holding their own in first-class company, mainly of course because

no efforts have been made to field representative sides.

Could not cups or shields be given for inter-division leagues at, for a start, the two codes of football and cricket? Could we not have our own Calcutta Cup match in miniature, I.C.I. England v. I.C.I. Scotland? Or our own Battle of the Roses at Cricket, I.C.I. Yorkshire v. I.C.I. Lancashire? There would seem to be endless possibilities.

R. A. PAGE

Paints Division
Slough

In Praise of Bulk

Sir,

Far be it from me to strike a hostile note, but your correspondent "Thin Man" should be a little more particular about his facts, even in fun. He makes two statements: "G. K. Chesterton had great mental distress in regard to his religious belief and, in general, was somewhat unstable." These assertions are simply not true, and I defy "Thin Man" to produce one shred of evidence in support of either of them.

MALCOLM F. SMITH
Export Metals Sales Department
Metals Division, Witton

Riot of Colour

Sir,

I read Mr. Lawrie's delightful article "A Riot of Colour" in your February issue with an undercurrent of that "too good to be true" feeling. From the time he gave the total expenditure figure of £10 I found myself a rather wistful sceptic.

Is the labourer not worthy of his hire? Does he find the boulders for his rock-garden on the builder's site?

What about that shapely stone flower-pot, and the peat, and the leaf-mould and the grass-seed?

The lovely iridescent bubble was shattered when I realised Mr. Lawrie was still living in a dream world where it was possible to buy I.C.I. Garden Fertilizer. "De mortuis"—that Phoenix has risen again, but has changed its name and address.

His valedictory sentence is bitter-sweet. "Pest Controls—do not worry about them." But what about Plant Protection?

T. AINSLIE ROBERTSON
(Chairman, Plant Protection Ltd.)

Aid for Those in Need

Sir,

It would be interesting to find out how many of our elderly ex-employees require care and attention. This question is often dismissed by the broad statement "Let the Government look after them—we pay for it." I would like here to say that Part III Accommodation does not meet the case. Thousands of elderly people are struggling along trying to make ends meet. The cases which concern us most are those living alone.

My inquiry is, would the members of the Pension Fund or the Friendly Society agree to contribute towards the setting up of several homes in different parts of the country to provide happy surroundings and reduce hardship among our elderly men and women?

Please excuse if I have transgressed into the field of Works Council procedure; I am sure my old colleagues of the Central and Divisions will forgive me.

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IT was my first visit to England. From the ordered rush of Southampton and Waterloo, through which I was guided by my wife, I drove in a London taxi to relatives in Chelsea. After a warm welcome and meal it was suggested that we should visit an office of the Ministry of Food.

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At Hawthorndale the secretary welcomed me with a smile and said "Would you like to come upstairs and meet Dr. Tanner?" It was Dr. Tanner I wanted to see, so I gladly went upstairs with her. Said Dr. Tanner, "I'll just call Mr. Thomas. In the meantime, would you like to sit there?" He had indicated a real comfortable armchair, so I sat in it.

At Hawthorndale I met Miss Bradford, a South African entomologist and old colleague, who had gone there on exchange from Somerset West. I thought that she would speak the same language as I did, but when she said "Mr. Whitnall, would you like to come to see the mites in the glasshouse?" I had to ask "What is the meaning of this 'would you like to'?" I explained that I had struck it wherever I had been during the six days I had been in Britain. Miss Bradford laughed and said it was just the sort of thing I would spot, but she did not explain the meaning.

I came across this saying on many other occasions during my visit but did not make undue enquiries. I was told, however, that the people in the north were very different from those in the south. When I got away from the agricultural south to the industrial north and my wife and I were entertained to dinner in Chester by two Scots and their wives, I was shaken when our host said to his wife "Me dearr, would ye like to sit herre?" I asked Mrs. Pirie just exactly what it meant and was answered by Mrs. Coyne, "It means you jolly well sit here or . . ."

Our long leave came to an end all too soon. A week at Keswick among the English lakes, which surely make up some of the most beautiful scenery on earth, sped by as a day. The lochs of Scotland also have their beauty and the people their peculiar ideas. Our bus driver was a Scottish Nationalist who wanted Home Rule Now. It must have been men like him which made the Suid Afrikaner remark

"n Skotsman is die beste soort Engelsman!"

We were soon back in London, where people, policemen, taxi drivers and bus drivers are so patient with each other. There was so much to see. The spirit was willing, but the body said no. And so we came to Waterloo and Southampton and the customs officers. "Could I have your national registration card, sir?" I proudly produced it from my wallet. He said, "Thank you, I'll keep it now." "But I was asked if I would like to keep it!" I protested.

There is much to learn about that island and its people.



IN JAPAN TODAY

By P. R. Gaine (I.C.I. (Japan))

Britain and Japan are both small islands with large populations facing a similar problem—to export or die. Here Mr. P. R. Gaine, Director of I.C.I. (Japan), tells how Japan is meeting this challenge.

ALTHOUGH in many respects Japan's economic position is similar to that of Britain, her main problem has always been that of feeding a huge and rapidly increasing population on small, and largely infertile, islands. In 1934 the population of Japan was 65 million. Today it is 83 million and continuing to grow at a rate of about 1,400,000 a year.

Of the total area of Japan there are only about 18 million cultivable acres, i.e. about 4.7 persons per acre, as compared with 50 million people in Britain on 31 million cultivable acres, or 1.6 person per acre. These figures illustrate very graphically Japan's ever-present population problem. The principal foods are rice, fish and vegetables, and some of these are now imported from territories which were previously Japanese colonies.

Before the war a partial answer to the population problem was found in large-scale emigration to the Japanese empire in Korea, Formosa and Manchuria. But this method is no longer open to them, and today the main question facing any Japanese government is firstly how to feed the population and secondly how to stop its increase.

The phrase "export or die" obviously applies to Japan to an even greater extent than it does to us. It is for this reason that the Japanese are working very hard to repair the ravages of war and to recapture their former export markets, particularly in south-east Asia and India. There is no doubt that British exporters must be prepared to meet with very severe Japanese competition in these areas as well as in other places such as

South America. The Japanese are fully aware that certain of their pre-war trading methods earned them and their goods a bad name and they have promised to take steps to avoid such unfair trading practices in future. Nevertheless they regard the recapture of their markets as being absolutely vital to them, and they will do everything they can to regain them.

Japan has one big advantage over western exporters inasmuch as she has an inexhaustible supply of cheap labour. However, this advantage is largely offset by the fact that Japan is very poorly off for raw materials, having to import such vital commodities as salt and coking coal. The result of this so far is to bring the price of her exports more or less in line with those of her competitors, but there is no doubt that our own exporters must expect very severe competition in the not too distant future.

As a place to live in Japan has many advantages. It is a beautiful mountainous country with a pleasant, equable climate and some of the loveliest scenery in the world. In fact, if only her roads were better—and they are very poor—it might be described as a tourist's paradise. There are facilities for winter sports in the Japanese Alps, and fine sea bathing and sailing, beautiful golf links and many delightful health resorts with natural hot spring baths. The Japanese themselves are very "sport-minded," being particularly fond of baseball and rugby football. The prowess of their Olympic swimmers in pre-war days is likely to be equalled or bettered in future Olympic games by such swimmers as Furahashi and others.

HOW MUCH SHOULD BE SPENT ON RESEARCH?

By Sir Wallace Akers (Research Director)

"Rate of Expenditure on and Evaluation of Results of Industrial Research" is the title of a paper read not long ago by Sir Wallace Akers to an international symposium. But the paper is of more general interest than this forbidding title would indicate, and we print below a shortened version of its salient points.

SINCE many companies do not distinguish between research and development, and there must in any case be many borderline cases, I propose to use the word "research" to cover both fields. That is to say, the expenditure I am considering is that involved in actual laboratory research, together with the amount required to bring a project up to the point where the necessary scientific, technical and commercial data have been assembled to enable the manufacturer to make a decision to go ahead with the project on a large scale.

It is clear that the amount of money which a company spends in this way will be related to the number of persons engaged in research and development, so that it is fairly easy for a research director to estimate in advance how much money he will spend in a particular year. This figure is often expressed as the annual expenditure per qualified member of the research and development departments; by "qualified" is usually meant graduates of universities or people with an equivalent qualification. In I.C.I. this worked out altogether in 1950 at £3100 per man.

This figure will vary considerably from industry to industry and also varies appreciably within the chemical industry. Some types of industrial chemical research involve the setting

up of semi-technical plants which are expensive to build and run, whereas in the dyestuffs industry, for example, a larger proportion of the expenditure will be for work at the bench. In the five larger Research Departments in I.C.I. the expenditure per qualified man in 1950 ranged from £2200 in the Nobel Division to £5400 in the Plastics Division.

One frequently finds research expenditure expressed as a percentage of the annual turnover of a company. There seems to be no logical justification for this; but it is an interesting fact that in the chemical industry large firms seem to spend on research each year a sum equivalent to about 3% of their turnover. In I.C.I. we did spend, in 1950, exactly 3%.

For a company which carries out research into processes which it intends to put into large-scale operation, the top limit of legitimate expenditure would seem to be that sum which produces as many successful inventions as the company is in a position to exploit. If research were done on a larger scale than this, the result would be that successful research work was merely consigned to the files and not exploited—and this would inevitably affect seriously the morale of the workers in the Research Department.

The limit to the ability of a company to exploit its researches

might be either the rate at which its engineering department could design and construct the necessary large-scale plants, or it might be the extent to which the company was able to invest money each year in new developments.

Although on paper this seems a simple way of fixing a ceiling to research expenditure, in practice it becomes applicable only in the light of long-term experience.

Now as to evaluating the results of research: clearly, research expenditure has to be met out of profits, and in the long run the board can legitimately ask if the results of research have paid for the work. It is not normally a question of defending the case for research: but even the research director must be interested in the financial results of the work carried out in his department over a long period of years.

A number of methods have been proposed from time to time for assessing the value of the results of research, but it can safely be stated that no one of them can be regarded as

completely sound. One possible method, which I put forward very tentatively, is to assume that it is due to the work of its research department that a company is able to invest money at a rate of return higher than that which would be obtained if the money were merely invested in first-class securities.

For example, if the operation of a new process devised by the research department showed a return on the capital invested in the plant of, say, 15%, then it might be reasonable to say that 5% of this was required to "service" the capital, and the remaining 10% might be regarded as the benefit which the company had obtained by reason of its possessing a research department.

It is true that this ignores the effort put into the establishment of the new product by the engineering and commercial departments; but these departments would have had no work to do on this particular project were it not for the original work by the research department.

FOOD FOR THOUGHT

Contributed by Jealott's Hill Research Station

THE Chinese proverb "Big fish eat little fish; little fish eat shrimps; shrimps eat mud" and the prophet Isaiah's "All flesh is grass" both express the fundamental truth that only plants *make* food. Just as grass is transformed by the cow into the meat and the butter that we eat, so algae ("the mud that the shrimps eat") are the prime food source of all the fishes in the sea. Plants alone can use the energy of sunlight to manufacture complex organic substances out of simple inorganic salts and the carbon dioxide of the air. Until the chemist has succeeded in unravelling the mysteries of plant life, animals (including man) are entirely dependent, either directly or indirectly, upon the vegetable kingdom. Already, as we know to our cost, there is not enough food to go round, and the world population is increasing more rapidly than the output of agriculture. How, then, are we to avoid starvation?

Recently published work still in progress at Jealott's Hill Research Station (Central Agricultural Control) may provide a possible answer. The aim of this research, which is being conducted by Dr. M. J. Geoghegan, is to find practicable and economic methods of raising large colonies of unicellular algae for direct consumption by farm animals or even by human beings.

Chlorella vulgaris, the alga which has been used in the present experiments, is one of the simplest forms of plant life, each individual consisting of a green, thin-walled, spherical cell less than 1/2500th of an inch in diameter. The literal meaning of the name *Chlorella* (Greek *Χλωρός*, green, with the Latin diminutive *ella*) is "little green thing." Species of *Chlorella* occur naturally in many places and are probably most familiar to the reader as the green slime that so quickly contaminates aquaria, goldfish bowls and flower-pots.

Its ability to multiply itself rapidly was indeed one of the reasons why *Chlorella vulgaris* was selected from the many thousands of different algae as a suitable subject for study. It reproduces simply by the parent cell splitting into a pair of daughter cells. Under the most favourable conditions a culture will double its weight (i.e. dry matter) at least once every nine hours. Yeasts or moulds grow even faster but require an external source of carbohydrate, such as molasses, which must ultimately be provided by a green plant. *Chlorella*

needs no external supply of prefabricated carbohydrate, as it is able to make its own.

Calculations based on the results so far obtained suggested that it may be possible to obtain much higher yields per acre from *Chlorella* than from any known agricultural or horticultural crop. Another point of great importance is that, according to the conditions under which it is grown, the composition of *Chlorella* may be rich in protein, fat or carbohydrate, whichever is desired. The work at Jealott's Hill has been mostly concerned with the production of edible protein, but potential uses for the other constituents are also being considered.

In the laboratory *Chlorella* has been cultured under continuous artificial illumination in a battery of long glass tubes. (Daylight of an intensity such as we have in southern England for six to eight months of the year would be equally satisfactory.) The finished product (harvested by centrifuging and freeze-drying) is a green powder, looking like dried spinach and possessing a not unpleasant, sweet taste. It contains twice as much protein as roast pork or fried herring and six times as much carotene (the precursor of vitamin A) as dried grass. It has not yet been fed to sheep or cattle or, in any large quantity, to human beings, but tests on rats have shown that its protein efficiency ratio is significantly higher than that of dried brewers' yeast or groundnut meal.

Whether we shall one day be eating algal soup or *Chlorella* sandwiches it is still much too early to say. Neither the German attempts (before and during World War II) to produce edible fats from moulds nor the British Government's wartime scheme to manufacture food yeast from West Indian molasses, though technically feasible, were economically successful; the *Chlorella* scheme may fail for the same reason.

We do know, however, that the application of fertilizers to ponds, lakes and even narrow inlets of the sea so stimulates the growth of plankton algae that the fish population is markedly increased and that this practice is already a commercial proposition in several parts of the world. It is perhaps not unreasonable to conjecture that if we, instead of the fishes, could eat the algae, the process might be even more profitable.

Chlorella undoubtedly gives food for thought!



A composite photograph showing members of Paints Division's Colour Advisory Department at work

Concerning Colour

By Stanley A. Wood (Paints Division)

For seventeen years the Colour Advisory Service of Paints Division has designed colour schemes for almost every kind of building—hospitals, schools, theatres and hotels. But some of its most effective work has been for industry where it is no exaggeration to say that the right use of colour has brightened the daily lives of thousands of workers.

COLOUR can create an impression of warmth or coolness, of nearness or distance. It can stimulate or soothe. It can be used to emphasise good features or to make unsightly ones less conspicuous. Rooms can be made to look higher by stressing vertical features, or wider by accentuating horizontal mouldings. Suitable colour treatment will reduce glare from the source of illumination. Objects can be made to seem larger or smaller, lighter or heavier, by the appropriate choice and juxtaposition of colours.

Although the wise use of colour offers many exciting possibilities, we as a nation are only just beginning to understand

the profound meaning of colour in our everyday lives and to realise the far-reaching effects it can have on our health and happiness.

Relatively few of the people who control decoration have been trained to use colour to the best advantage. Many believe that choosing colours is simply a matter of personal preference; some realise that their knowledge of colour is limited and would like to learn more about the subject. It is good to know that the number of those seeking information is steadily growing.

What makes some colour schemes good and others bad?



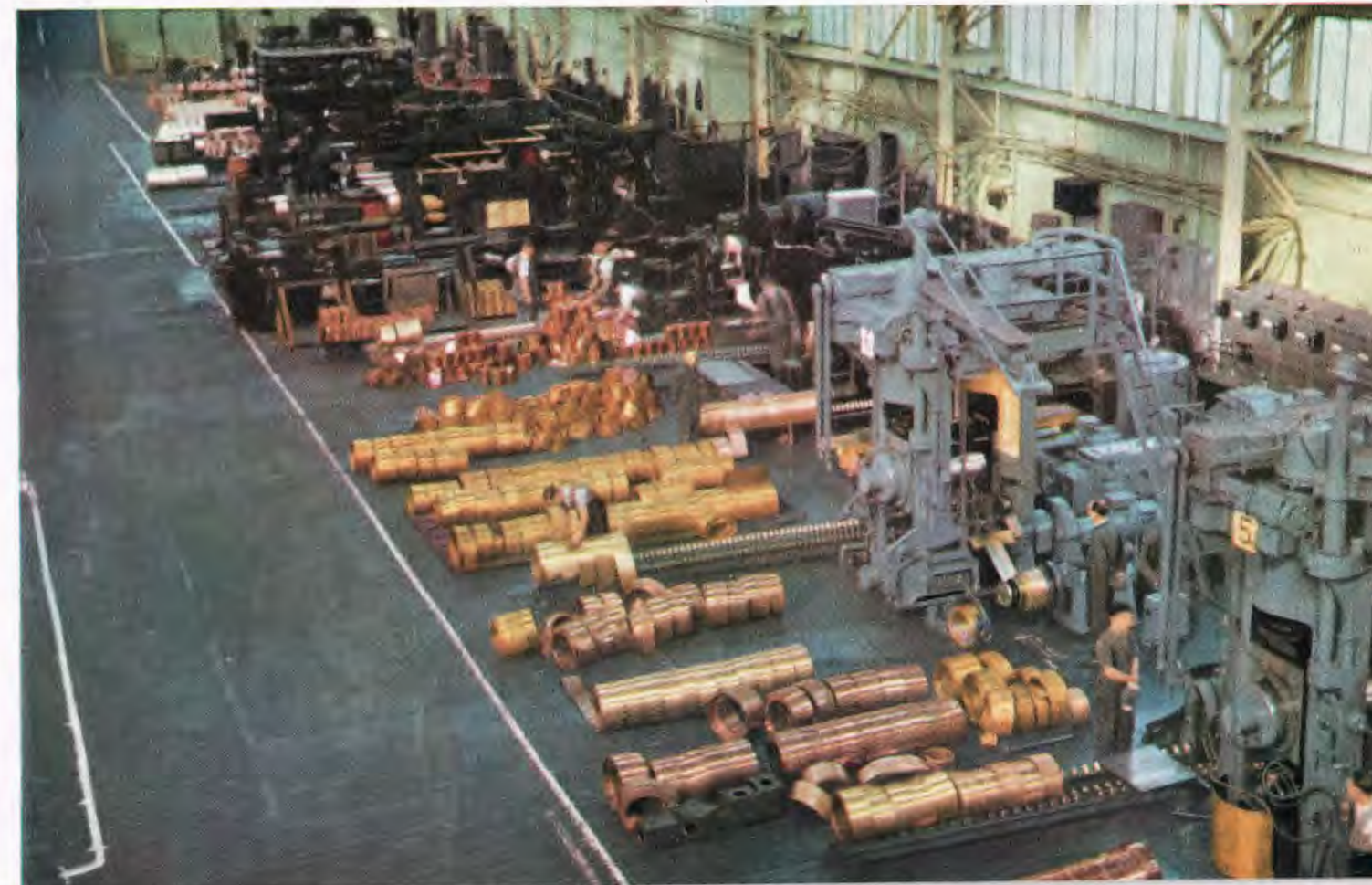
THE RIGHT AND WRONG USE OF COLOUR. *The Assembly Rooms at Norwich, where red lends emphasis to an outstanding architectural feature. (BELOW) An example of the wrong use of colour. The red doors catch the eye and serve to distract the attention of the children from the blackboard.*



THE OSCOTT CANTEEN at Witton, Birmingham, re-decorated after the war under a Colour Advisory Service plan. Colour has served to bring the restful and friendly atmosphere of a restaurant into an industrial building.



COLOUR LENDS BRIGHTNESS and charm to a London housing estate. (BELOW) *The rolling mills at Witton, where the blue-grey of the machines—some of them still to be painted—contrasting with the bright tones of the copper produces an industrial scene not without beauty.*



There is no satisfactory short answer to this question. It must be admitted that pleasing, and sometimes inspired, schemes are evolved by those with a natural flair for interior decoration. But such gifts are extremely rare—more so than is generally realised—and in any case the schemes so produced are mostly for subjects such as domestic interiors.

The choice of colours for the interior decoration of the home concerns only the occupants. But colours for the exteriors of houses and for the interiors and exteriors of public buildings, being the concern of all those who see them, must be carefully planned if satisfactory results are to be obtained.

Creation of a pleasing or striking appearance should not be the sole aim in devising such colour schemes. A swing from drab and depressing "institutional" browns and dark greens to the other extreme of bright, cheerful colours is a natural and understandable reaction. In some buildings delightful and effective environments have been the outcome; in others this has led to the adoption of what might be described as "exhibition technique," which is unsuitable for many subjects. Progressive industrial managements recognise the need to provide, in their workshops, environments that are of benefit to those who spend a large proportion of their lives in them. But it is essential for them to realise that the kind of colour treatment that looks most attractive to the visitor passing through the shops does not necessarily form the most suitable background for efficient working. Similarly, in classrooms and hospital wards, colour schemes should create surroundings conducive to study and convalescence respectively.

An Individual Problem

To obtain the most satisfactory colour treatment for any building it must be considered as an individual problem. This is obviously so in hotels and in homes, where the colour and pattern of the furnishings and furniture form an important part of the colour schemes. In all buildings where some of the existing colours (flooring, wall tiles, machinery, etc.) will be retained, it is desirable for the colour designer actually to see them. There are also other variable factors—the size and proportion of rooms; in factories, the layout, size and type of machines and colour of material processed—to mention a few of the many which must be taken into account.

Above all, it should never be forgotten that the balance of a colour scheme, skilfully contrived in daylight, may be completely upset when it is viewed in artificial lighting. It follows that tentatively selected colours must be viewed together in the natural and artificial lighting by which they are to be seen to ensure that the proposed colour treatment is satisfactory both by day and by night.

The above outlines some of the considerations that affect the work of the Paints Division Colour Advisory Department. This department was set up in 1934 to extend the services offered to assist in the effective use of the Company's paint products.

Ever-widening recognition of the value of well-chosen colour in buildings has led to a corresponding expansion in the demand for colour advice. To meet this Paints Division has brought together in its Colour Service Studio a team of colour

designers equipped by training and experience to provide a comprehensive colour service.

The work of the department includes giving lectures on colour to various organisations and associations up and down the country, writing articles on this subject for technical journals and compiling or revising colour ranges for the products of the Division. Its main activity, however, is in providing, to the Sales Regions, colour service in relation to the painting of buildings.

Visits are paid in company with sales representatives to discuss with customers the problems entailed and to note at first hand the details needed for the preparation of colour recommendations. From these notes (or from information received direct from the Area Sales Offices) the proposed colour schemes are prepared and illustrated by water-colour drawings, folders with mounted colour slips, simple models, or by painted panels showing the recommended products.

Many Suggestions

Suggestions are put forward for the colour treatment of many kinds of buildings, including hotels, cinemas, town halls and other places of assembly, schools, hospitals and factories.

Some indication of the Company's contribution in this field is given by the fact that several hundred colour schemes are submitted each month. More than half of these are for factories.

The widespread acceptance by industrial management of the need for guidance in this matter represents a remarkable development from the first significant experiments in the colour treatment of workshops. These experiments were made in 1940, when it seemed paradoxical to some that factories should be glamorised in wartime. But, as is being appreciated more and more, the benefits to be gained from the thoughtful use of colour in workshops go far beyond the improvements in appearance that can be achieved, striking as these are in most instances.

I.C.I. was among the first to appreciate the possibilities of colour in industry, and although much remains to be done in our own factories a good start has been made. Colour advisory staff have pleasant memories of good-natured co-operation within the Company. Probably the clearest recollections are of several of our essentially practical engineers and their kindly, if somewhat bemused, toleration of these "artists with a mission."

Today colour service is sought by many specifiers and users of paint. Having all the merits of technical service and, in addition, the popular appeal of colour, it has proved a singularly effective means of attracting new business and of creating and maintaining good will.

Members of Colour Advisory Department, being commercial artists, derive considerable satisfaction from the part they play in selling paint. Should it also be a matter for pride that colour service is helping to create a more colourful and more cheerful background to the everyday life of this country? And would it be unreasonable to believe that colour service is making a modest but worthwhile contribution to the drive for increased industrial production?

Or are such suggestions too highly coloured?

The growing of

ROSES

By N. P. Harvey (Plant Protection Ltd.)

(With illustrations from The Rose in Britain)

There can be few gardeners who do not love roses, but not all rose lovers are sufficiently knowledgeable to grow them well. Here an expert from Plant Protection tells you how to get the best results.

ARE really first-quality roses beyond the scope of the average gardener? Do they demand more attention than anyone with limited leisure can possibly give, and are expert knowledge combined with perfect soil conditions essential?

These questions can be answered quite simply. The hobby of rose growing can be followed by anyone with every prospect of successful results, provided he or she is willing to devote neither more nor less time than is usually expended on any other form of recreation. Exhibiting roses is admittedly a tricky business, but if you only desire flowers for garden display and cutting, there are few soils or situations which, given the necessary attention, cannot be persuaded to yield quality blooms. At the same time, those who wish to obtain extra-special results will find plenty of scope for their energies.

The rose is undoubtedly the most popular flower in this country, and the reasons are very easy to determine. There are varieties in nearly every colour or combination of colours, many richly scented. One may choose bush varieties, varying in height from two to four feet or even more; climbers and ramblers which clothe pillars, arches, pergolas, fences and walls; miniature varieties like the new buttercup yellow Josephine Wheatcroft which are excellent for rockeries; or shrub roses with a more free habit which usually occupy far more space than the average bush variety.

The bush varieties, which consist mainly of hybrid teas and polyanthas, bloom from June to early autumn. Roses are much hardier than is commonly supposed and will withstand severe winter frosts. Perfect drainage is, however, essential.

In a short article it is obviously impossible to mention all the pointers to successful rose growing, let alone enumerate all the worth-while varieties, which run into many hundreds.

Buy or borrow (though if you are really keen on rose growing only a volume that can remain permanently on your shelves for ready reference will satisfy you) an up-to-date book on the subject. The expression "up-to-date" is important, because any work published earlier than five or six years ago will be to some extent out of date as regards varieties. For example, a number of really outstanding roses specially suitable for the beginner have been introduced since the end of the war.

The enthusiast will go further and join the National Rose Society. For half a guinea a year—there is no entrance fee—he will, among other privileges, receive the Society's annual, which contains approximately two hundred pages and is illustrated in colour and black and white. This embodies the very latest information on all aspects of rose growing, including details of new varieties. It also includes articles for beginners as well as the more advanced type of grower.

Before discussing soil preparation and so on a word must be said on the buying of rose trees. As always, it pays to buy the best. Do not be tempted to purchase the cheap lots of trees offered outside shops, with the roots bone-dry from lack of any form of covering. If you buy from any reputable nurseryman the price of most bush varieties will be 3s. 6d., or 4s. 6d. in the case of climbers and ramblers. There are, of course, reductions where six or more of the same variety are required. Newer varieties are more expensive, but even the very latest novelty never exceeds 10s. 6d. When one considers the life of

an average rose tree—ten years is quite common with bush varieties—which increases in size and beauty as it ages, 3s. 6d. is surely relatively inexpensive.

I have already emphasised that situation and soil need not worry you unduly. There are, however, certain provisos. Do not plant on a raised-up bed or near trees, which are gross feeders, absorbing practically all plant food from the surrounding soil. Roses planted alongside trees are also more liable to pest and disease attack.

Never plant your trees where surface water is likely to lie in winter. Perfect drainage at all times is vital, and digging to a depth of $2\frac{1}{2}$ –3 ft. will break up the soil, enabling the water to percolate through.

Many people still believe that a clay soil is essential for growing perfect roses. This is an absolute fallacy, though land on the heavy side sometimes—by no means always—yields the best results.

Any time between early November and the end of March is suitable for planting. Trees planted after March are apt to suffer from cold winds and drought, which delay the formation of roots. Never plant when the land is sodden or frostbound. Try to complete the soil preparation not less than three weeks before planting, to allow the ground time to consolidate.

Break up the soil to a depth of two spits by thorough digging, incorporating bonemeal, compost, peat and hop manure. If the land is in poor heart, *well-rotted* farmyard manure may be added, but never let it come in contact with the roots of the trees, or it may burn them. Do not place the manure in layers, but mix it thoroughly with the soil. Never apply manure as a

surface mulch in autumn or winter to “protect” your trees; as already explained, they are very hardy, needing no winter protection.

Often when the trees arrive from the nursery immediate planting is impossible. Undo the package and heel the plants in a trench, where they will be quite happy for several weeks if necessary. If the soil is frostbound, leave the package in



DICKSON'S PERFECTION, an Irish rose with a most refreshing perfume, very free flowering and ideal for cutting. The blooms last well. It transplants extraordinarily well as a cut-back.

any shed or *unheated* place where frost cannot penetrate. When the thaw comes, unpack and heel in as before.

The nursery soil mark on the stem denotes the correct planting depth. Firm planting is vital. Prolonged frost often loosens the trees in the soil; therefore inspect all your plants directly the thaw arrives. If they can be moved with only a slight effort they ought to be re-firmed immediately.



PEACE, a new French rose with a big reputation in this country and America. A wet summer suits it, the blooms opening well during rainy periods. It is a strong branching grower even on light dry soils.

What is the correct way to prune rose trees? There is no cut and dried answer, though the modern view is that trees should not be pruned too hard. It is impossible to give details regarding the pruning of the different types of roses, but the following general remarks may help. All cuts should be slanting and made just above a *dormant* “eye” or bud—this is a small protrusion on the stem which eventually develops into

a shoot. Always remove all worn-out, weak, dead or diseased wood when pruning and then proceed to cut back. When pruning hybrid teas—late March is the usual time—endeavour to go over the trees again about three weeks later and leave only one shoot to each eye. If superfluous eyes are rubbed out, the remainder will develop into vigorous stems and weak, thin growths will be fewer.

Many amateurs like to propagate some of their favourite varieties from cuttings and wonder why it is necessary for the nurseryman to rely on budded plants. Budding, is however, more rapid in effect; indeed, a shoot which furnishes several good buds only makes a single cutting. Roses grown from cuttings do not usually bloom until two years have elapsed. Polyanthas and hybrid polyanthas, also climbers and ramblers are usually more successful than hybrid teas, which are a doubtful long-term investment grown in this manner.

Cuttings are taken from July to November—the earlier the better, as rooting is slower in cold weather. Well-ripened shoots of the current year's growth are essential. They should come from the base of a shoot which has carried flowers, but it is quite unnecessary to take them with a heel, that is, a piece of the older wood.

The cuttings should be about nine inches long, the cut being made just below the lowest eye, at the same time removing the lower leaves.

Place the cuttings about six inches apart in trenches six inches deep, and preferably in a sheltered spot. Tread the ground firmly and water if it seems at all dry. Leave the

cuttings until the following autumn and then transfer to their permanent home. They will bloom the following summer.

We now come to the question of fragrance. Some very unjust accusations have been levelled at present-day varieties, which are often said to be devoid of scent. Before attempting to prove the falsity of such statements, let me give the names

of a few modern hybrid teas, all good varieties, which have a decided perfume: Barbara Richards, Christopher Stone, Crimson Glory, Crimson King, Dame Edith Helen, Dickson's Perfection, Fantasia, Etoile de Hollande, Golden Dawn, Hebe, Hector Deane, Home Sweet Home, Lady Forteviot, Lady Sylvia, McGredy's Yellow, Monique, Polly, President Herbert Hoover, Red Ensign, Rubaiyat, Shot Silk, Sutter's Gold and Tallyho.

There have always been scentless roses, but in all probability the *proportion* of really fragrant kinds is higher nowadays than forty years ago, when fewer varieties were in cultivation. Contemporary roses embody a far wider range of scents than their predecessors. In the nineteenth century the damask and tea scents were the most typical. Nowadays we have the fruity aroma of Angels Mateu and Lady Forteviot, the spicy scent of Polly and Tallyho, the clove-pink fragrance of Katharine Pechtold, and so on. And is any variety, new or old, more strongly scented than Crimson Glory?

Remember also that fragrance is very dependent on atmospheric conditions. Roses are apparently less fragrant in cold, rainy weather than in a humid atmosphere. So never say that a particular variety is devoid of perfume until you have smelled it on more than one occasion.

Pests and diseases are less troublesome on roses than many other plants. Greenfly and caterpillars are easily wiped out by the benzene hexachloride spray 'Sybol,' which is cheaper and more reliable than derris and nicotine preparations. Powdery mildew is encouraged by various factors, notably sudden changes of temperature, and is more common in late spring and early autumn. A mulch of grass cuttings, peat or hop manure helps the trees to resist attacks, and prompt spraying with a sulphur preparation such as 'Tulisan' will arrest the spread of the fungus.

Black spot is more serious in a wet season. Nevertheless, as with mildew, various factors must be considered. For example,



DAINTY MAID is considered by many the best of the pink hybrid polyanthas. Dainty Maid does not spot with rain like Else Poulson and is not subject to black spot or mildew.

though the climate in the north of England is on the whole wetter than in the south, the smoke and soot emanating from factories are not conducive to the development of the spores and in such areas, and Black spot is of less significance. I have found 'Tulisan' a very good preventive spray, but frequent applications are necessary, as the disease spreads with great rapidity during rainy periods.



HER MAJESTY QUEEN ELIZABETH II

(Photo by Karsh of Ottawa)

I.C.I. NEWS

UNIVERSITY HONOURS FOR MR. JOHN ROGERS AND SIR WALLACE AKERS

MR. John Rogers, O.B.E., Chairman of I.C.I., and Sir Wallace Akers, C.B.E., Research Director, both received honorary degrees recently: Mr. Rogers the degree of Doctor of Laws at St. Andrews University, Edinburgh, on 6th February, and Sir Wallace the degree of Doctor of Civil Law at Oxford University on 24th January.

The occasion for the honour accorded to Mr. Rogers was the official opening of a new hostel for research students of St. Andrews. Dean's Court, as it is called, is one of the oldest inhabited houses in the town. The renovation needed to fit it for its new purpose has largely been made possible by a substantial grant from the directors of I.C.I., who had in mind the desirability of young chemists and physicists coming into daily contact with men whose interests are non-scientific.

Sir James Colquhoun Irvine, Principal and Vice-Chancellor of St. Andrews, presided over the graduation ceremony, which was held in the Parliament Hall of the University. Referring

in his address to the opening of Dean's Court, he said:

"It is not merely the creation of another residence: it is the provision of a home for graduates and scholars drawn from any faculty, a community bound by a common interest—the pursuit of Truth in any of the disguises under which she conceals herself." The significant point about the grants from Imperial Chemical Industries and the Carnegie Trust, he said, was that they were made on the understanding that there should be no restriction on the type of research carried out by the residents of Dean's Court.

Mr. Rogers was presented for the Honorary Degree of LL.D. by Professor R. T. Erskine Wright, Dean of the Faculty of Arts. After outlining Mr. Rogers' career in I.C.I. Professor Erskine Wright went on to say:

"The great organisation of which he is the head has long been noted for its enlightened policy, both in promoting fundamental research and in ensuring the welfare of its workers at all levels. To this enlightened policy we ourselves owe the

munificent gift which has enabled our own researchers to live together in peaceful and gracious surroundings; and on this auspicious day, when we consecrate Dean's Court to the advancement of the higher learning in the years to come, it is surely right to honour the man to whose vision, influence and generosity this happy occasion is so largely due. I therefore gladly ask you, Mr. Vice-Chancellor, in token of our esteem and gratitude, to admit him an Honorary Doctor of Laws."

Mr. Rogers then knelt on a stool before Principal Irvine, who put the seal on his graduation by touching Mr. Rogers on the head with the velvet cap said to have belonged to John Knox, the Scottish Reformer. The LL.D. hood was then placed on Mr. Rogers' shoulders by a university officer.

In conferring the honorary degree of Doctor of Civil Law on Sir Wallace Akers, Oxford University recognised the help and encouragement given to scientific research at the University by I.C.I.

The ceremony was held in the ancient Divinity School, which is in the very core of the University. In accordance with ancient tradition the Public Orator, Mr. T. F. Higham, a Fellow of Trinity College, introduced Sir Wallace in a Latin speech.

Referring to Sir Wallace's career in I.C.I., the Public Orator said: "Taught by his own experience in research how one discovery leads on to another, he utilised the resources of the firm to encourage, extend and maintain the keen pursuit of scientific truth, not only within its laboratories, but also in our own academic world.

"His co-directors were convinced by him that research workers in science, wherever they might be, were all in the same boat, and that by helping one another they could arrive more quickly at the port of their desire."

The Orator ended with a tribute to Sir Wallace's work as Director of Research on Atomic Energy during the war, and said the University's new Doctor had played a great part in the development of this new source of power, which they earnestly hoped would always be used only for pursuits of peace.

Chairman of Central Agricultural Control Retires

Mr. F. C. O. Speyer retired on 31st December, 1951, after 37 years' service with I.C.I. and its predecessors. He was C.A.C.'s first chairman, and held the post for his last eight years with the Company.

After four years at Eton and two in Berlin studying music, Mr. Speyer went up to Balliol College, Oxford, in 1905 as Henry Nettlehip Music Scholar. Thereafter he spent six years with a City firm of produce merchants. He was then appointed by the late Sir David Milne-Watson and other leaders in the coal carbonising and shale industries to organise centralised selling of sulphate of ammonia, previously produced as a by-product and disposed of by some four hundred separate undertakings in the U.K.



Mr. F. C. O. Speyer

Between 1914 and 1919 Mr. Speyer, as manager of the Sulphate of Ammonia Association, served in the wartime Food Production Department. In 1920 the Association became the British Sulphate of Ammonia Federation Ltd. and Mr. Speyer its general manager. When Brunner, Mond & Co. began to make sulphate of ammonia synthetically at Billingham it first arranged for this to be sold by the Federation. In 1926, however, a jointly owned company, Nitram Ltd., was formed, with Mr. Speyer as general manager, to sell the Federation's sulphate of ammonia and the other forms of nitrogenous fertilizer becoming available at Billingham.

Mr. Speyer was in the U.S.A. immediately before the outbreak of the last war, but he returned just in time to assume his wartime appointment as Controller of Industrial Ammonia for the Ministry of Supply. As a member of the Fertilizer Committee of the Combined Food and Raw Materials Boards he visited Washington in 1943 and 1945. On the last occasion he took a leading part in the difficult task of determining the first post-war world allocation of nitrogen fertilizers, then in exceedingly short supply owing to war damage to nitrogen plants and greatly increased demands from all countries. In 1949 he received the C.B.E. for his war services.

Immediately war was over Mr. Speyer returned to I.C.I. as chairman of Central Agricultural Control, to which he had been appointed in 1944. He was thus responsible for the administration of I.C.I.'s research and technical development work in the general agricultural and pest control fields, including the primary research which I.C.I. does for Plant Protection Ltd. He was also responsible for co-ordinating I.C.I.'s interest in agriculture and for the conduct of the nation-wide grassland campaign which the Company initiated as its contribution towards the Ministry of Agriculture's effort to stimulate the greater output and better use of grass.

A colleague writes:

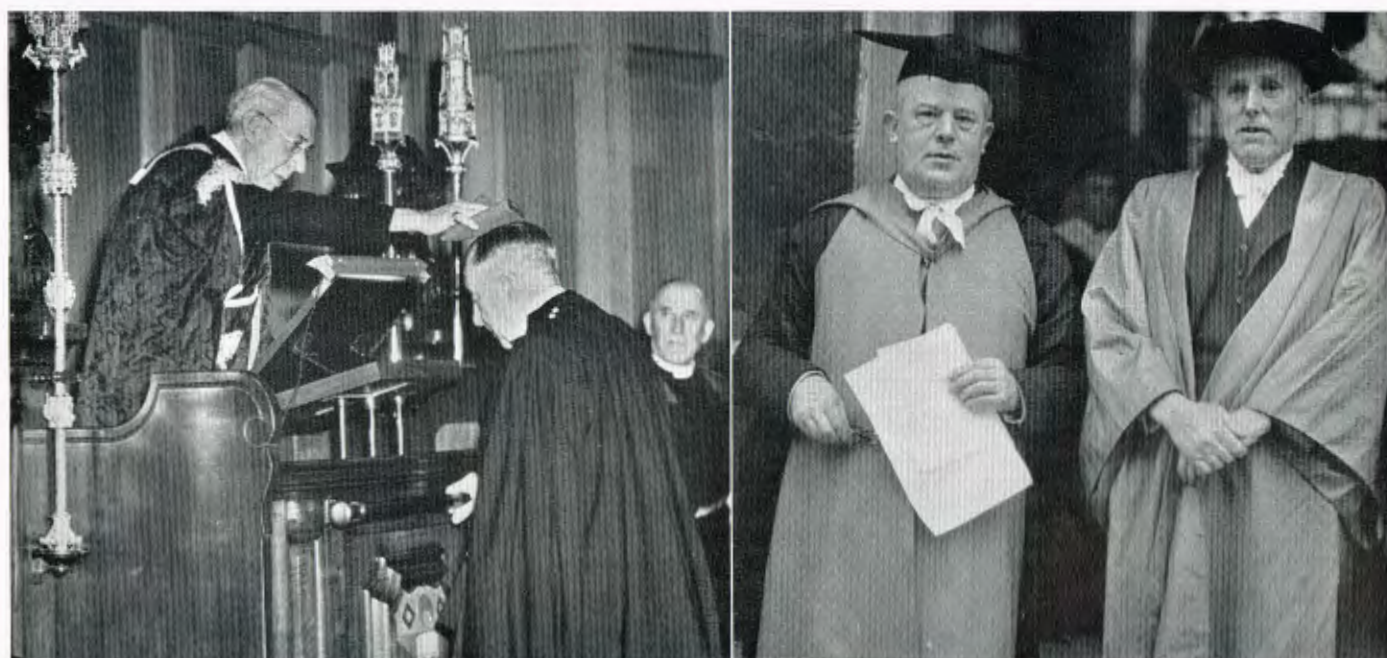
In his youth Mr. Speyer was a keen rock-climber, a highly skilled fencer and an enthusiastic rider to hounds. He has, however, derived more lasting enjoyment from leading a string quartet at home and in cultivating his taste for the arts in the many countries—almost literally "from China to Peru"—in which he has travelled. It would be hard to find anyone with a keener or more cultured mind. His thought moves with the speed and brilliance of lightning; his capacity for work is still immense; he has a subtle sense of the ridiculous, eloquence in speech and a nimble pen. Such gifts are too frequently accompanied by an understandable intolerance of more pedestrian qualities in others. This is not so with Mr. Speyer, who has ever shown quite remarkable patience, tolerance and consideration to those working with him.

Recently the British Sulphate of Ammonia Federation Ltd. has appointed Mr. Speyer its chairman. To this post he takes with him all our good wishes and the hope that this appointment will keep him in close touch with many of his old friends in I.C.I.

Retirement of Major H. G. Eley

The retirement of Major H. G. Eley, manager of the I.C.I. Game Research Station at Fordingbridge, brings to an end 124 years' continuous service to the ammunition trade by members of his family.

Major Eley's great-grandfather was one of the founders of



Mr. John Rogers, kneeling before the Principal of St. Andrews, receives his degree with a touch of John Knox's cap

Sir Wallace Akers (right), with Sir Maurice Bowra, Vice-Chancellor of the University, after the ceremony at Oxford



Major H. G. Eley

a firm which, in 1828, produced the first Eley cartridge. His grandfather and two great-uncles joined the business later, changing its name to Eley Bros. After almost exactly a century in the trade, the firm—by way of a merger with the Nobel and Kynoch concerns—became one of the original constituents of I.C.I. Its activities meanwhile had been guided by the Eley family, first a son and later a grandson of one of the original brothers entering the firm in succession.

Henry Gerard Eley began his career in the mercantile marine, sailing four times round the world and sampling life aboard cattle ships, passenger liners, cargo tramps, oil tankers and cable ships. In due course he gained his Master Mariner's Certificate, and he is thus certified as competent to this day, as he says, "to take the *Queen Mary* into New York Harbour, a collier to the Tyne, a four-masted barque to China, or a coasting schooner up the Bristol Channel."

His seagoing life was interrupted by the outbreak of war in 1914. But his Mariner's Certificate stood him in good stead when, serving as a staff officer after being wounded in France, he was transferred to the "mystery" port of Richborough.

Demobilised in 1920 as a Major, R.E., with a military M.B.E. added to his war medals, he joined Eley Bros. (then a constituent of Explosives Trades Ltd.). After two years in the factories at Angel Road and Waltham Abbey he was transferred to the Ammunition Sales organisation at Nobel House. In the course of his time there he visited ammunition plants in U.S.A., Spain and Czechoslovakia.

In 1933 Major Eley was given charge of an experimental estate and game farm in Hertfordshire which, at his suggestion, had been inaugurated by the Company. The venture was progressing steadily when work was interrupted by the outbreak of war, and early in 1940 he was appointed general manager of an ammunition factory in Lancashire operated by I.C.I. as agents for the Ministry of Supply. Not until 1946 was the Company able to restart its game research activities—this time on a 4000-acre site at Fordingbridge, Hampshire. Since then the Station has developed into a unique centre of experience and advice, whose expert technical services are available to I.C.I.'s ammunition customers all over the world.

In view of his family history it is not surprising that Major Eley has thoroughly enjoyed his work at Fordingbridge, describing himself as one of the luckiest men in the Company. Characteristically, however, he regards retirement primarily as a new adventure. Always a keen and versatile sportsman, he is looking forward to indulging his favourite pastimes at leisure, and it is certain that his many friends in the shooting fraternity will still find in Major Eley an enthusiastic champion of the Company's ammunition products.

The Late Lord Linlithgow

The news of the death on 5th January of the Marquess of Linlithgow was received with deep regret by his former colleagues on the I.C.I. Board.

Lord Linlithgow was on the Board of the Company from June 1944 to February 1945, when he resigned to take up an

appointment as chairman of Midland Bank Ltd. In that short period he made a valuable contribution to the conduct of the Company's affairs. His association with I.C.I. dates back to 1930, when he joined the board of the then recently formed Scottish Agricultural Industries Ltd. In 1931 he succeeded Lord McGowan as chairman of S.A.I. and remained as chairman until just before his appointment as Viceroy of India in 1935.

Lord Linlithgow's great knowledge and wide experience of agricultural problems were of great assistance to S.A.I., and he did much to weld its merger companies into the successful and unified enterprise which that company is today.

BILLINGHAM DIVISION

Another Record Year

1951 was another year of production records for Billingham Division. The output of chemicals from Billingham itself and from the Division's external factories approached 2,000,000 tons. During the year eight new plants came into operation, bringing olefines, formaldehyde, ethylene oxide and glycol, isopropanol, acetone, nonanol and alkylamines within the range of products made by the Division.

Among the spectacular increases in output from Billingham factories were those of nylon (enough was produced to make 200 million pairs of stockings), fertilizers, sodium, 'Diakon' moulding powder, and ammonia. Ancillary departments, such as those making packages and providing steam, had correspondingly large outputs. The 20-year-old boiler plant long ago exceeded the capacity it was built for, but it again broke all records in 1951 to meet the extra demand.

Dr. H. Holroyd, joint managing director of the Division, thinks that the economic position will prevent last year's achievement of new projects from being repeated in the next two or three years. But in a message to Billingham staff and workers he has outlined the Division's plans for the not-too-distant future: the extension of the ammonia, phenol and olefine plants, and the manufacture of naphthalene, detergent alcohols, and raw materials for 'Terylene' fibre.

GENERAL CHEMICALS DIVISION

Wednesbury Works Centenary Celebration

The celebration of the centenary of Chance and Hunt Works, Wednesbury (to which reference was made in the December issue of the *Magazine*), proved a happy occasion, and it was especially fortunate that among the guests assembled at dinner were two great-grandchildren of the founder of the works: Miss Kitty Hunt and Mr. W. Field Hunt, who was accompanied by his wife.

In response to a toast to the guests, Mr. Field Hunt entertained the company with stories, told with lively wit, of the early days of his great-grandfather, of his struggles with financial problems, and of how his great-grandmother came to the rescue in a dramatic little domestic scene. In this an important part was played by the rather curious china ornament seen in Mr. Hunt's hands in the accompanying picture. Behind the story of the china hen can be discerned the qualities of determination and grit, thrift and hard work on which the Wednesbury Works was founded. This, briefly, is the story.

William Hunt, the founder, and his wife both came of yeoman stock; both were more than six feet tall. They were

married at the age of 18, and both were evidently fond of children, for they brought up a family of nine. But financial resources failed to keep pace with family increments, and indeed it seemed that as often as the wolf came slinking to the door the stork flew in at the window. So to eke out the family income the wife would go to Bromsgrove market with butter and eggs for sale and oranges too, in which she did brisk business.



Examining the hen which laid William Hunt's nest-egg are two of his great-grandchildren, Mr. W. Field Hunt and Miss Kitty Hunt (right), and Mrs. Field Hunt

As time went on the husband, listening to tales told by the canal folk as they passed through Bromsgrove of the fine chances there were of making money in the Black Country, was sorely tempted to go there himself and try his luck. But a new venture would take time before it yielded any reward—and how to support a wife and family meanwhile? The couple talked it over and over, but the husband could see no answer to the question. The wife, though, had a secret that not even her husband knew. For many years there had been on the mantelshelf a china bowl, its lid in the shape of a sitting hen, such as was often used in those days for holding eggs. She reached it down, removed the lid, and disclosed—not eggs, but a hundred golden sovereigns, the long-saved proceeds of her marketing.

And so it was that this £100 provided the backing with which William Hunt set up his works. Before he died it had grown to £100,000. Small wonder that the china bowl has been preserved by the Hunt family as a real article of virtue.

Mr. Field Hunt added an amusingly human sequel to this story by saying that his great-grandmother always vowed that although her £100 loan increased a thousandfold, her husband never repaid it. And this has led to a saying among the women-folk of the Hunt family that a wife should never lend money to her husband!

Wednesbury Works, as the story reveals, was begun with the slenderest of resources. That it should have lived to celebrate its hundredth birthday is a great tribute to the man who founded it, to those who nursed it through its infancy, and to those coming later who maintained it and preserved its traditions.

METALS DIVISION

Distinguished Visitors to Creep Test Station

The I.C.I. Creep Test Research Station at Witton was inspected on 16th January by a group of the most distinguished metallurgists and physicists in the country. Among them were Professor E. D. Adrian, President of the Royal Society and Master of Trinity College; Mr. A. S. Quartermaine, President of the Institution of Civil Engineers; Sir Lewis Fermor, F.R.S., President of the Institution of Mining and Metallurgy; Dr. J. C. Smithells, M.C., President of the Institution of Metallurgists; Professor A. J. Murphy, President of the Institute of Metals; Professor D. Hanson, Professor G. F. Mucklow and Professor H. W. Melville, F.R.S., of the University of Birmingham; and directors of several important research establishments and industrial concerns. Representing the I.C.I. Board were Mr. John Rogers, Sir John Anderson, Sir Arthur Smout, Sir Wallace Akers, Sir Ewart Smith and Mr. W. F. Lutyens.

Before the inspection the visitors were entertained to luncheon, at which Mr. Rogers was in the chair. After welcoming the guests, Mr. Rogers emphasised that, although for obvious reasons it had been built in the heart of the Metals Division, the Station would investigate creep problems arising anywhere in the Company. He paid warm tribute to the way in which concerns already engaged on work in this particular field had put their knowledge and experience at the disposal of I.C.I.—a courtesy which, he felt sure, the Company would reciprocate.

Replying to Mr. Rogers' toast, Professor Adrian congratulated I.C.I. on the enterprise it had shown in setting up the Station. It would be of immense value not only to I.C.I. but to the nation as a whole, and it was particularly encouraging to know that some of the equipment would be devoted to research on the fundamental aspects of the problem, on trying to get a comprehensive theory of the behaviour of metals



Mr. John Rogers welcomes Professor Adrian to the Creep Test Research Station

under stress. "Just now," Professor Adrian went on, "when we are trying as a nation to pay our way, we are under a great temptation to go for the immediate essentials and leave the future to look after itself. Fortunately for all of us, the great firm which has put up this laboratory has always planned for the future as well as for the present."

The work of the Creep Test Research Station was described in the October 1951 *Magazine*.

Mr. T. A. M. Roberts

It is with deep regret that we announce the sudden death, on 3rd February, of Mr. T. A. M. Roberts, Sales Director of the Metals Division. He was 51.



Mr. T. A. M. Roberts

Mr. Roberts joined the staff of Elliott's Metal Co. Ltd. in 1916, and, when the Elliott interests were merged with I.C.I. in 1928, he was transferred to the Metals Division headquarters as Assistant Sales Manager. In 1930 he was made Metal Sales Manager at Manchester Area Office, and after his return to Witton became Division Metals Sales Manager in 1937.

Mr. Roberts represented the Company in almost all the trade associations of the wrought non-ferrous metals industry; his ability in this work and his prestige in Association circles were of great assistance and value to the Company. At the time of his death he was chairman of the Brass and Copper Tube Association and of the Extruded Brass and Copper Alloy Association and held a distinguished record of service in many others. He was a prominent member of the Council and Executive Committee of the British Non-ferrous Metals Federation.

During the first world war Mr. Roberts served with the R.F.C. In the 1939-45 war he was given the rank of Flight Lieutenant, R.A.F.V.R., and seconded for duty with the Air Training Corps, No. 1348 (Kynoch) Squadron.

In every sphere of his activities, both inside and outside the Company, Mr. Roberts earned considerable respect and affection. The non-ferrous metal industry, and the wide circle of friends he made in it, will mourn his loss.

Half a Century at Kynoch Works

Even in I.C.I., unbroken service lasting fifty years is a little uncommon—particularly when it is contributed by a member of the "weaker" sex. Mrs. Rosie Maxfield, however, is quite an unusual person. Of her half-century with the Company, which came to an end when she retired at the end of 1951, all but three years were spent in C Bullet Department, Kynoch Works. Her foreman says that in all the twenty-nine years he knew her she never refused a job, and that there was no better worker in the shop.

Apart from this excellent record, Rosie Maxfield was famous for her good nature and willingness at all times to share a joke. To anyone who asked the recipe for her unfailing cheerfulness she always gave the same answer: "It's because I have no man to worry me!"

NOBEL DIVISION

Retirement of Mr. Horace Barlow

Mr. Horace Barlow, M.B.E., deputy works manager of West-quarter Factory, retired on 31st January after 39 years' service with the Company.

Born in Yorkshire, he began his long career in detonator manufacture with Nobel's Explosives Company Ltd. at West-quarter Factory in 1913. In the years that followed this wiry, energetic, intensely practical man "got on with the job." He always gave his complete attention to the matter in hand, whether it was work or play. Today he is a keen golfer and curler, as in youth he was a redoubtable footballer and runner.

From the start of the first world war until the end of 1915, when he was recalled for technical work at Westquarter, he served in the second battalion, the Gordon Highlanders, as a sergeant. This period as a "Jock" added to his fund of reminiscence and his knowledge of the Scot.

After the war, as a plant superintendent, he increased his experience in all aspects of detonator manufacture, with special interest in the assembly of electric detonators and fuses.

As assistant manager at Westquarter during the second world war Mr. Barlow carried a heavy responsibility and took a large part in the factory's magnificent war effort. He was also controller of the factory A.R.P. organisation and commanded the factory contingent of the Home Guard.

Mr. Barlow had a great reputation with service departments and Royal Ordnance Factories, and he helped enormously in the development and large-scale manufacture of special war fuses. When war ended he did not relax. As Production Controller he was fully engaged getting Westquarter back to its peacetime routine and production.

At the beginning of 1951 he received the M.B.E.—a richly deserved decoration, and one which was also an honour to Westquarter Factory.

PAINTS DIVISION

Harrison's Canaries

One of that diminishing band of old soldiers who will this summer be celebrating the fiftieth anniversary of the Boer War's ending is Mr. W. Harrison, formerly a commissionaire at Slough, and now honorary secretary of the Paints Division veterans' club and a regular contributor to *Paints Bulletin*.

Fifty years ago Mr. Harrison was a corporal in the Coldstream Guards. He remembers vividly his encounters with the Boers, but even more vividly an encounter in the veldt with the biggest male ostrich he had ever seen.

"He was twenty yards away," says Mr. Harrison, "and travelling at speed, so there was no time to take evasive action, for these great birds can run as fast as any racehorse."

"He raced to within three yards of me, then stopped dead, and we stood glaring at each other for a full minute, during which he made no move to attack me. Hoping that he was as



Mr. W. Harrison

nervous as I was, I decided the best thing to do was to walk on. My bird friend evidently thought so too, for he began to march along with me, still keeping his distance of three yards. Every few hundred yards he performed a little dance, and when I looked at his feet I saw they resembled horses' hooves with spikes on. I was not enjoying the dance.

"Then he became friendly and drew nearer, showing curiosity about what was on my back. He ventured a peck or two at my pack, and I could feel my back hair standing up straight. When I could stand it no longer, I swung my rifle round, and missed him—but the threat made him take up his old position and carry on marching at my side."

"Apart from several more dances, nothing happened during the next twelve miles and we came to an isolated farm. A native girl, aged about ten years, threw a reproving glance at my escort, then picked up a small stick and charged him, shouting at the top of her voice. The ostrich turned and sailed off full pelt in the direction from which we had come. I merely said 'Well, I'll be censored!' Later I learned that ostriches are quite harmless to humans except when nesting, but for a long time afterwards ostriches were always referred to in my company as 'Harrison's canaries.'"

PLASTICS DIVISION

'Perspex' Workers meet Sculptor

The biggest block of 'Perspex' ever made was the raw material for a sculptured head recently on view at Welwyn.

The head, entitled "Symbol of Light," was in an exhibition of work in 'Perspex,' phenolic resins, terra-cotta, bronze and wood by a well-known Australian sculptor, Dr. A. J. Fleischmann. The block from which it was carved, measuring 31 in. x 12 in. x 10 in., was made last year at Orchard Mill, Darwen, and three of the workers who had helped in its



'Perspex' workers Bill Whalley, George Banks and Stan Cocker discuss a point with Dr. Fleischmann (second from right)

making were able to visit the exhibition and talk with Dr. Fleischmann about their work and his.

Day-worker George Banks, who actually poured the 'Perspex,' told Dr. Fleischmann something about the intricacies of making such a large block. Oven inspector Stan Cocker explained the mysteries of polymerisation. Together with Bill Whalley, A Squad chargehand in the casting chamber, they were able to give Dr. Fleischmann a detailed case history of the unique block of 'Perspex.'

Dr. Fleischmann, for his part, was able to describe for them the technique of working with 'Perspex.' He finds it resembles sometimes wood, sometimes marble, in its cutting characteristics, according to whether the amount being chipped off is large or small. The chips are sharp and brittle; to protect his eyes from them he wears a 'Perspex' mask designed for him by Plastics Division, and to protect his hands from projecting spikes, a stout pair of gloves.

Dr. Fleischmann first experimented with plastic sculptures in Australia during the war. Among the commissions he has undertaken since coming to England are a set of carved 'Perspex' panels for the I.C.I. stand at the 1949 British Industries Fair. The sheets of 'Perspex' used for these were at that time the thickest ever made.

"Symbol of Light" was commissioned by the Netherlands electrical firm of Philips N.V. for their head office at Eindhoven. It will be illuminated from within the brass plinth on which it stands.

SALT DIVISION

Division Labour Manager Retires

Mr. Jabez Bennett retired from the position of Division Labour Manager of Salt Division on 31st January, after more than 40 years' service with I.C.I. and the Salt Union. He joined the Salt Union in 1911 as assistant to the Worcestershire District Accountant at Stoke Works. He served in the first world war and was wounded in the first battle of the Somme. Returning to Stoke Works in 1918, he became Worcestershire District Accountant in 1922.

At the birth of the Salt Division in 1937 Mr. Bennett became the Division's first labour manager. This appointment brought him back to his native Winsford, where his brother had been engaged as chief of the Salt Union's Works and Estates Department.

Mr. Bennett became seriously ill in September 1950, but made a remarkable recovery and continued as Division Labour Manager until his retirement.

He is a keen fisherman, and has had many a day's good sport in the meres and streams of mid-Cheshire. He takes a very active interest in the Men's Guild of St. Paul's Methodist Church, Winsford, of which he is also a trustee.

His many friends throughout the Company wish him a complete recovery from his illness and a long and happy retirement.



Mr. J. Bennett

I.C.I. (INDIA)

Music against Mosquitoes

A powerful instrument in I.C.I. (India)'s fight against malaria in the largely illiterate villages of Madras is the 'Paludrine' squad, shown in the picture below.



The squad consists of a leader, two pipers and two drummers. They arrive at a remote village by bus or bullock cart and take up a prominent position where they will be seen by the largest possible number of villagers. The band strikes up, the banner waves, and the squad marches round the main thoroughfares of the village. It then returns to its original position—followed by crowds of villagers—and the squad leader addresses the audience in the local language.

The gist of his speech is the misery and havoc caused by malaria; its transmission through the mosquito; and its conquest by various antimalarial drugs. The performance culminates with the display of a strip of 'Paludrine.'

I.C.I. (MALAYA)

Coming-of-age Present

A new two-storied building for I.C.I. (Malaya)'s Kuala Lumpur branch was officially opened on 5th January by Mr.



I.C.I. (Malaya)'s new building in Kuala Lumpur

M. P. J. Hogan, Attorney-General of the Federation of Malaya.

The new building contains offices on the upper floor and warehouse accommodation on the ground floor. All the offices are air-conditioned to a temperature of about 73° F. and a comfortable degree of humidity. There is a canteen, a small but modern laboratory, a board room, and, on a mezzanine floor, a small air-conditioned room for pharmaceutical products.

Some two hundred European and Asian guests—local businessmen, planters and government officials—attended the opening ceremony. Mr. M. F. Cutler, chairman of I.C.I. (Malaya), explained that the company had celebrated its twenty-first birthday only three days before, and that the opening of the new building in the Federation's capital was therefore a happy addition to the coming-of-age celebrations.

Mr. Hogan, declaring the building open, said he regarded it as a token of I.C.I.'s confidence in the future of Malaya.

THE ROSE IN BRITAIN

In November 1951 Plant Protection made its third venture into the publishing field, with a book entitled *The Rose in Britain*. It was written by a member of their Publicity Department's staff, Mr. N. P. Harvey, who is the author of the article on roses in this issue of the *Magazine*.

A first edition of 7500 copies was printed, which might well have sufficed for two years. Fortunately, however, the book (which is obtainable from all booksellers at 17s. 6d. net) took on very well as a Christmas gift, and a second edition is already in hand. Nearly all reviews of *The Rose in Britain* refer to the exceptional quality of the twenty-three coloured plates.

Plant Protection's two previous publications were *Good Health to the Garden* and *Fruit Growing for Amateurs*.

* * *

OUR NEXT ISSUE

What have we to learn from the Americans in the matter of the training and responsibilities of foremen and supervisors? This is the theme of a most informative article by I.C.I. Education Officer, Mr. F. H. Perkins, who last year visited the United States and studied this question as a member of an Anglo-American productivity team. His pertinent observations on American methods should command very general interest.

By way of contrast our next article looks back to the old days when haulage was a matter of horses and not horse-power. Last October Boxer and Captain left Stoke Prior Works for the last time to be pensioned off on a nearby farm. Mr. A. F. Nicklin manages to convey something of the deep affection felt for these horses.

Of our two colour features, one comes from our office in Turkey and tells the history of the ancient Turkish carpet—the carpet which has inspired the pattern for so many carpets in English homes today. Our other colour feature is on the breeding of greyhounds. The greyhound has often been called the working man's racehorse, and its breeding has proved a most profitable sideline to many working men.

Lastly we publish a story of fantasy, written by Mr. R. P. Maxwell, liftman at Nobel House.



... clinging like a ribbon on the sheer face of cliff

RESTFUL HOLIDAY

By Sidney Rogerson (Publicity Controller)

(Illustrated by A. R. Whitear)

THAT drive was no more than a feature of a summer holiday, but it was so revealing an example of what the English will endure in their annual pursuit of the sun that it merits recording. It was also an experience in its own right.

From the start the holiday seemed to be blighted. Bidden to present ourselves on board our ship at 2.30 p.m. we obediently complied, only to be informed we would not sail until 2.30 a.m. next day. Followed a discouraging twelve hours in a dirty dock and, if we were in bed and asleep when the ship eventually sailed, we were rudely awakened at 6 a.m. by the blare of the fog siren and nearly pitched out of bed by a heavy bump a second or two later.

Enquiries showed that we had moved no further down the Thames than Shellhaven and its oil tanks when fog had forced us to anchor. The bump was caused by a thrusting Norwegian freighter colliding with us, luckily only damaging herself in the process.

For three days that fog clung like a heavy blanket over a greasy, rippleless sea as the ship crawled down the Channel and into the Bay, funereally trumpeting her passage every thirty seconds like a wounded mastodon, until by mid-afternoon the sun would make a belated and apologetic appearance.

The afternoon siesta was thus only possible to the strongest sleeper and for us was made the more difficult because the next cabin housed at least two children whose mother made them "have a rest" each afternoon, with all the bumpings and antics common to children compelled to such health-giving repose.

Followed a spell of bright sunshine off the Spanish coast and an unsuccessful attempt to make the Rock Hotel at Gibraltar accept a Bank of England note in payment for a meal ashore. Then there was a typical English March day of cold wind and lashing rain as we pushed up to Marseilles. Those who had cast their cloths hurried back into tweeds and duffle coats, and when we landed in Genoa it was in clothes appropriate to an English autumn.

I.C.I. (INDIA)

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A powerful instrument in I.C.I. (India)'s fight against malaria in the largely illiterate villages of Madras is the 'Paludrine' squad, shown in the picture below.



The squad consists of a leader, two pipers and two drummers. They arrive at a remote village by bus or bullock cart and take up a prominent position where they will be seen by the largest possible number of villagers. The band strikes up, the banner waves, and the squad marches round the main thoroughfares of the village. It then returns to its original position—followed by crowds of villagers—and the squad leader addresses the audience in the local language.

The gist of his speech is the misery and havoc caused by malaria; its transmission through the mosquito; and its conquest by various antimalarial drugs. The performance culminates with the display of a strip of 'Paludrine.'

I.C.I. (MALAYA)

Coming-of-age Present

A new two-storied building for I.C.I. (Malaya)'s Kuala Lumpur branch was officially opened on 5th January by Mr.



I.C.I. (Malaya)'s new building in Kuala Lumpur

M. P. J. Hogan, Attorney-General of the Federation of Malaya.

The new building contains offices on the upper floor and warehouse accommodation on the ground floor. All the offices are air-conditioned to a temperature of about 73° F. and a comfortable degree of humidity. There is a canteen, a small but modern laboratory, a board room, and, on a mezzanine floor, a small air-conditioned room for pharmaceutical products.

Some two hundred European and Asian guests—local businessmen, planters and government officials—attended the opening ceremony. Mr. M. F. Cutler, chairman of I.C.I. (Malaya), explained that the company had celebrated its twenty-first birthday only three days before, and that the opening of the new building in the Federation's capital was therefore a happy addition to the coming-of-age celebrations.

Mr. Hogan, declaring the building open, said he regarded it as a token of I.C.I.'s confidence in the future of Malaya.

THE ROSE IN BRITAIN

In November 1951 Plant Protection made its third venture into the publishing field, with a book entitled *The Rose in Britain*. It was written by a member of their Publicity Department's staff, Mr. N. P. Harvey, who is the author of the article on roses in this issue of the *Magazine*.

A first edition of 7500 copies was printed, which might well have sufficed for two years. Fortunately, however, the book (which is obtainable from all booksellers at 17s. 6d. net) took on very well as a Christmas gift, and a second edition is already in hand. Nearly all reviews of *The Rose in Britain* refer to the exceptional quality of the twenty-three coloured plates.

Plant Protection's two previous publications were *Good Health to the Garden* and *Fruit Growing for Amateurs*.

* * *

OUR NEXT ISSUE

What have we to learn from the Americans in the matter of the training and responsibilities of foremen and supervisors? This is the theme of a most informative article by I.C.I. Education Officer, Mr. F. H. Perkins, who last year visited the United States and studied this question as a member of an Anglo-American productivity team. His pertinent observations on American methods should command very general interest.

By way of contrast our next article looks back to the old days when haulage was a matter of horses and not horse-power. Last October Boxer and Captain left Stoke Prior Works for the last time to be pensioned off on a nearby farm. Mr. A. F. Nicklin manages to convey something of the deep affection felt for these horses.

Of our two colour features, one comes from our office in Turkey and tells the history of the ancient Turkish carpet—the carpet which has inspired the pattern for so many carpets in English homes today. Our other colour feature is on the breeding of greyhounds. The greyhound has often been called the working man's racehorse, and its breeding has proved a most profitable sideline to many working men.

Lastly we publish a story of fantasy, written by Mr. R. P. Maxwell, liftman at Nobel House.



... clinging like a ribbon on the sheer face of cliff

RESTFUL
HOLIDAY

By Sidney Rogerson (Publicity Controller)

(Illustrated by A. R. Whitear)

THAT drive was no more than a feature of a summer holiday, but it was so revealing an example of what the English will endure in their annual pursuit of the sun that it merits recording. It was also an experience in its own right.

From the start the holiday seemed to be blighted. Bidden to present ourselves on board our ship at 2.30 p.m. we obediently complied, only to be informed we would not sail until 2.30 a.m. next day. Followed a discouraging twelve hours in a dirty dock and, if we were in bed and asleep when the ship eventually sailed, we were rudely awakened at 6 a.m. by the blare of the fog siren and nearly pitched out of bed by a heavy bump a second or two later.

Enquiries showed that we had moved no further down the Thames than Shellhaven and its oil tanks when fog had forced us to anchor. The bump was caused by a thrusting Norwegian freighter colliding with us, luckily only damaging herself in the process.

For three days that fog clung like a heavy blanket over a greasy, rippleless sea as the ship crawled down the Channel and into the Bay, funereally trumpeting her passage every thirty seconds like a wounded mastodon, until by mid-afternoon the sun would make a belated and apologetic appearance.

The afternoon siesta was thus only possible to the strongest sleeper and for us was made the more difficult because the next cabin housed at least two children whose mother made them "have a rest" each afternoon, with all the bumpings and antics common to children compelled to such health-giving repose.

Followed a spell of bright sunshine off the Spanish coast and an unsuccessful attempt to make the Rock Hotel at Gibraltar accept a Bank of England note in payment for a meal ashore. Then there was a typical English March day of cold wind and lashing rain as we pushed up to Marseilles. Those who had cast their clouts hurried back into tweeds and duffle coats, and when we landed in Genoa it was in clothes appropriate to an English autumn.

It had been our plan to rest with friends in Genoa while we found some quiet seaside resort where we could spend a few days in idleness and sunshine. Alas, our friends' flat on the Corso was a hell-trap of noise by day and night. The Italian normally drives his car after the manner of a retired jet-plane pilot, and the two wide carriage ways of the Corso were ideal speed tracks for the gallant young men and women who, with cut-outs open, roared their little Fiats or still noisier and more numerous Vespas at full throttle.

Move we had to—and that quickly. Local opinion suggested that Rapallo, Santa Margherita or Porto Fino were seaside resorts within easy reach and likely to suit our purpose. One whole weary Sunday we spent in buses, exploring these places, only to return wiser but more disappointed. They were nothing but tourist towns by the sea, without beach, without quiet and, in October, without sunshine.

Then someone suggested trying further south—"One of those little places near Naples" (Positano was the name mentioned)—and, determined at all costs to flee the Corso and its screaming traffic, to Positano we decided to go, no matter that we had no idea of what it was like, how far it was from Naples, what hotels there were, or whether they would be able to receive us without warning. We found the names of two or three hotels, among which the Miramare appealed most, and discovered (which should have given us pause but did not) that Positano boasted only one telephone and that in the post office.

Notwithstanding all such uncertainties, we felt wholly confident when my brother assured us he would have us met at Naples by his agent, who would run us out to Positano or anywhere else we wanted to go. In the event "run" was not the appropriate word.

Anyway, at 8 o'clock of a bright October morning we boarded the rapido at Genoa, en route for Naples and the Hotel Miramare, Positano. All that long day we sat in that train. The further south it went the more lowering became the weather, until before we reached Rome it was raining as steadily and as depressingly as in England. Luckily it stopped shortly after 6 p.m. before we alighted at Naples, to be met immediately by a sinisterly handsome young man who, entrusting our baggage to two porters, announced himself as my brother's agent, and then quite spoilt the welcome by giving us to understand only too clearly that he knew neither English nor French.

Still, repeating "Positano, Hotel Miramare," in a tone of determined confidence, we followed him out of the station to a small car which, with him, the driver, the two of us and six suitcases all stowed inside, was indecently and almost dangerously overcrowded. After stilling the shrill cries of the porters with a 1000 lire note to divide among them (this was sheer robbery, but after so long a journey and with so uncertain a prospect I had not the energy to resist their demands) we set off, the little car lurching and grinding on its springs as it hit the pot-holes in the rough stone road.

We passed what we assumed to be the docks as dusk was falling and the lights beginning to sparkle around the wide arc of the Bay of Naples. Little time or mind had we for beauty or the romance of the gloaming. We were thrown against each other as the car threaded its way down streets which grew narrower and dirtier until it pulled up at a door close to what was undeniably a manure heap—and not a wholesome farm-yard one either. "Smell Naples and die" would, I believe, be perhaps the apter phrase!

The agent sprang out of the car and disappeared through the door into what appeared to be a tiny office, emerging therefrom with a fatter and more vigorous type of Italian who genially announced himself as "Della Valle, I speaka good English" (that was all the English he could speak!). Time being of no account in those latitudes, he offered us coffee, but we, poor innocents, thinking we should be safe with a drink in our room at the Hotel Miramare in a few minutes, declined, trying to make him understand by signs, bad French and synthetic Italian that we wished to push on. If we had any mental picture at all of what we expected, it was of some small sandy beach within, say, half an hour of Naples, and on the Bay itself.

I also tried to convey to Signor Della Valle that he should telephone Positano and ask the people there to warn the Hotel Miramare that a weary English couple were on their way. He signified his comprehension and that he would do so: "Anything to oblige" sort of attitude. (We were to learn later that he did nothing.) Then with a salve of "buona seras" the two agents or whatever they were went back to the office, the door closed behind them and we were left alone in the darkness with our driver.

Not till then was the full horror of the situation disclosed. Not only could the driver speak no word of any language either of us could understand, but he was a near-mute in his own, the only sounds he could utter being a hushed, dry whisper, such as is made by shuffling one's feet through a drift of autumn leaves.

We were given no time in which to assess our situation, as without more ado he backed the car into a main road and set off at its best speed of probably 25 miles an hour, only to stop twice with a worried shake of his head to inspect his rear wheels. This was not calculated to reassure us, and certainly the car did not feel too well trimmed; either the tyre pressures were uneven or perhaps it was the steering. Even so, we were not unduly alarmed. We were still among the friendly lights of the suburbs of Naples, and Positano could not be far away.

We stopped again for a level crossing and again to let our whispering driver shush and click over some uncertainty with his car. By now the situation was becoming a trifle disconcerting. We were tired, dirty and hungry. The car felt as if it might come to pieces at any moment. We had been ten hours in the train and had already come some miles from Naples. Yet we seemed to be turning inland instead of towards the sea. Then passing through some small hamlet whose lighted windows were beacons of comfort, the driver stopped, let down the window and in a whisper of obvious enquiry demanded of a passer-by "Positano?"

Then we knew finally that not only were we at large in a strange land in darkness, in a small rickety car with a semi-mute driver in charge, but also that he knew his way to Positano no more than we did.

Another small village and another, and at each the enquiry in that strained dry whisper. On and on. An hour passed. The villages were fewer, the houses farther and farther between. The road began to climb steeply. Then, blessed sight, a signboard said plainly "Positano, Amalfi, etc." Hope again! Now there were no lights at all, and no moon. We plodded forward into the blackness, our hearts beginning to thump almost as much as the engine. Up now and up, turn and twist, and then a glimmer of moon, piercing the rain-swollen clouds, revealed we were running along a narrow road clinging like a ribbon on the sheer face of cliff whose summit

towered hundreds of feet above and which met the sea hundreds of feet below.

Having an inherent dread of heights I hastily looked away, said nothing to my wife and concentrated on staring ahead. Every now and then I queried "Positano?" to the silent figure in front, each time to get a double click of the tongue which I took to mean "Si, si."

My wife was becoming really frightened, and when suddenly two carabinieri leaped out of the darkness and with rifles pointed towards us signalled to us to halt, she began to sob. My heart probably missed a beat, but a whispered explanation by the driver seemed to satisfy the guards, and on we went again. There seemed no end to the road, which we had been travelling now for so long. How long was it? My watch said 8.30 p.m., which meant that it was already more than two hours since we had left Naples, at least an hour of which had been spent on this lonely and terrifying cliff road. Yet, dispirited though I was, I was also resigned. There was nothing to do but go forward in hope, and somehow I had a growing confidence in the little driver and never entirely lost my faith that our luck would hold and we should make a happy arrival. Not till days later did I reflect how easy it would be for some evildoer of the night to hold up the car, bump off its occupants for the sake of their luggage and tumble their bodies over the parapet to the sea which licked and crawled around the rocks hundreds of feet below.

Abruptly the road started to drop, round in spirals but definitely, steeply down, Heaven be praised—the light of some inn or shop by the roadside, the first habitation we had passed in miles. More darkness, and still downwards, and the car brought suddenly to a sharp stop before a heap of stones and gravel, from behind which a figure emerged and came towards us. "Soldiers again!" gasped my wife, clutching my arm. She was wrong—it was an aged man. The driver got out, whispered with him, then threw open the car door and signalled us to descend.

Meekly we obeyed, not knowing what was to come next.



... the car threaded its way down streets which grew narrower

Then we saw the old man seizing our bags. What *was* happening now? Was this a hold-up? Had the carabinieri warned others to stop us? What was afoot? Not without difficulty I found my voice, and tried to sound unconcerned as I demanded "Positano, Hotel Miramare?" "Si, si," said the old

man, now festooned with our suitcases. "Click-click" went the driver in eager confirmation, and both promptly began to disappear down a black hole at the roadside from which I imagined the gravel and stones had been dug. "Hotel Miramare?" I queried in bewilderment. They signalled us to follow.

Gingerly we did so, to find ourselves treading a steep stone stairway between rock walls or houses built into the rock. Down, down, down and turn to the left. Then as sharply to the right, and out of the blackness of the pit into a blaze of soft and welcoming light. We knew at once we had reached our destination.

We were on a terrace bathed in the light which came from a dining room and a lounge in which two unmistakably English couples were playing canasta. A tall man in a tweed jacket came towards us and—blessed relief—asked in faultless English what he could do for us. He could and did do everything we could have wished and far more than we had expected. He saw to the tipping of the baggage porters. He removed our worst doubts by providing us at once with better and

more comfortable quarters than we had ever hoped to find, braced our shattered nerves by two prompt and strong drinks, and eventually showed us to our beds after an excellent dinner.

The only thing he could not do was to provide good weather, and after two days of persistent grey skies and intermittent drizzle we felt we had taken our long and exhausting journey in vain. No sooner had we telegraphed that we were returning than the weather changed. We had at least one day of glorious sunshine and bathing, and when at 6 o'clock of a morning four days later we prepared to say adieu to Positano, it was almost too hot to breakfast in pyjamas on the terrace outside our room.



In the hills of North Wales

Photo by Miss E. E. Atkins (Nobel House, London)

The Editor's Postbag

Readers are asked to help make a success of this Correspondence Supplement and send letters for publication to the Editor before the 17th of the month. Letters should be of general interest, non-political, and as brief as possible. They should not deal with subjects for which there is special machinery for dealing elsewhere, such as trade union matters or matters which should properly be dealt with in Works Council.

Do We Lag Behind in Sport?

Sir,

While watching with admiration the stirring efforts of Christopher Winn and Stephen Fry (this almost certainly must be the first occasion on which two employees of the same organisation have played on opposite sides in an international match) in the recent England v. South Africa game at Twickenham, I was asked by a friend if I.C.I. ran any representative Rugby sides. I was forced to reply that to the best of my knowledge no XV truly representative of I.C.I. as a whole had ever taken the field, nor had any efforts ever been made to raise such a team, and this moreover applied to all other sports. Surely with an organisation of our standing this is wrong.

Many smaller firms, like the banks and the oil companies, play a very large part in the amateur sport of this country and their teams more than hold their own with all but the highest company. Indeed, Lensbury (the Shell Petroleum Co.'s recreation club) send a first-class eight to Henley each year, and also with success to several regattas on the Continent of Europe, while their cricket team is one of the strongest club sides in London.

If such a standard can be achieved by smaller firms, cannot I.C.I. endeavour to improve on their rather dismal record? With the exception of the fine Billingham Synthonia football team, who have several grand performances in the F.A. Amateur Cup to their credit, it would seem that there are no I.C.I. teams capable of holding their own in first-class company, mainly of course because

no efforts have been made to field representative sides.

Could not cups or shields be given for inter-division leagues at, for a start, the two codes of football and cricket? Could we not have our own Calcutta Cup match in miniature, I.C.I. England v. I.C.I. Scotland? Or our own Battle of the Roses at Cricket, I.C.I. Yorkshire v. I.C.I. Lancashire? There would seem to be endless possibilities.

R. A. PAGE

Paints Division
Slough

In Praise of Bulk

Sir,

Far be it from me to strike a hostile note, but your correspondent "Thin Man" should be a little more particular about his facts, even in fun. He makes two statements: "G. K. Chesterton had great mental distress in regard to his religious belief and, in general, was somewhat unstable." These assertions are simply not true, and I defy "Thin Man" to produce one shred of evidence in support of either of them.

MALCOLM F. SMITH

Export Metals Sales Department
Metals Division, Witton

Riot of Colour

Sir,

I read Mr. Lawrie's delightful article "A Riot of Colour" in your February issue with an undercurrent of that "too good to be true" feeling. From the time he gave the total expenditure figure of £10 I found myself a rather wistful sceptic.

Is the labourer not worthy of his hire? Does he find the boulders for his rock-garden on the builder's site?

What about that shapely stone flowerpot, and the peat, and the leaf-mould and the grass-seed?

The lovely iridescent bubble was shattered when I realised Mr. Lawrie was still living in a dream world where it was possible to buy I.C.I. Garden Fertilizer. "De mortuis"—that Phoenix has risen again, but has changed its name and address.

His valedictory sentence is bitter-sweet. "Pest Controls—do not worry about them." But what about Plant Protection?

T. AINSLIE ROBERTSON
(Chairman, Plant Protection Ltd.)

Aid for Those in Need

Sir,

It would be interesting to find out how many of our elderly ex-employees require care and attention. This question is often dismissed by the broad statement "Let the Government look after them—we pay for it." I would like here to say that Part III Accommodation does not meet the case. Thousands of elderly people are struggling along trying to make ends meet. The cases which concern us most are those living alone.

My inquiry is, would the members of the Pension Fund or the Friendly Society agree to contribute towards the setting up of several homes in different parts of the country to provide happy surroundings and reduce hardship among our elderly men and women?

Please excuse if I have transgressed into the field of Works Council procedure; I am sure my old colleagues of the Central and Divisions will forgive me.

I would be willing to answer any criticism or enter into discussion through your postbag.

A. W. FOSTER
(Ex-Councillor, Marston Excelsior, Leeds)
Iveson House, Ireland Wood
Leeds, 6

What has happened to 'Antrycide'?

Sir,

Recently I was browsing through some of my old notebooks, and I came across the report that four I.C.I. scientists had discovered 'Antrycide,' a cure and immuniser for trypanosomiasis (sleeping sickness in cattle).

According to my source of information (*Our Empire*, February 1949) this means that eventually an area in Africa, 75 times the size of England and Wales, twice as large as the U.S. and four times the size of the Argentine, will be opened up to cattle ranching.

It would be interesting, in view of our present meagre ration of meat, to hear of any developments which have taken place in the three years that have elapsed since this startling announcement.

LESLIE Warburton
Chief Engineer's Dept.
General Chemicals

An article on 'Antrycide' replying to this letter will appear in the April magazine—Editor

How to Climb Mountains

Sir,

Of course, my friend Kevin Fitzgerald made the mistake of going with skilled mountaineers. One should climb alone. Then altitude and acclivity do not matter. A thousand-foot walk up the easiest approach to a well-known peak provides a substratum of fact, and a little reading of Mummery or Smythe furnishes material for an imaginative story of chimneys, shoulders, couloirs, crevasses, traverses and overhangs. The hearers, obviously, must be carefully selected — ignorant, credulous and modest. This will prevent awkward questions and also save one from listening to bigger lies. Repetition of the tale will, in time, make the teller himself believe it and increase his assurance of narration.

If one chooses the wrong person and is found out, one can laugh it

off, more or less uneasily, as a mild essay in Munchausenism. If this fails to convince or gives offence, one will know whom to avoid next time. Perhaps one's reputation in this case was already doubtful.

Another and less crude technique is that of *suggestio falsi*. It consists in telling the truth but not the whole truth; this with an air of austere reticence which forbids prying curiosity. I have spoken vaguely of climbs in Skye and Austria which I hope gave the impression that I had mastered the stiffer Cuillins and the Grossglockner. I neither affirmed nor denied. One cannot always particularise.

H. CARRINGTON
Legal Department
Nobel House, Flat L/2
London, S.W.1

"Red Heart"

Sir,

In your December issue of the *Magazine* you refer to "Pierced Heart" as a device of General Chemicals Division.

"Pierced Heart" is a misnomer. It was always and still is known as "Red Heart," and it stood for something, viz. quality. I believe I am correct in saying that 65 years ago the Greenbank Alkali Works Ltd., St. Helens, Lancashire, were the only chemical company to advertise commercially as apart from trade adverts. "Red Heart" was known the world over in those early days, and goods packed under that brand commanded a premium in price. The adverts in the trade press would read as follows:

76% Caustic Soda "Red Heart" Brand
77%

£10 5s. per ton F.O.B. to pool.

All other brands £10 F.O.B. to pool.

Greenbank Alkali Company were the originators of the small canister trade in chemicals, and a big trade was done in South Africa. An early settler once informed me that you could easily follow the trek from Cape Town to the Orange Free State by noticing the empty "Red Heart" canisters on the veldt.

It is interesting to recall the origin of "Red Heart." Mr. W. I. Menzies, who with his brother Mr. Stephen Menzies was the founder of

Greenbank Alkali Co., was in the throes of a very sincere love affair which, however, was not running as smoothly as he desired, and one day in a stricken and contemplative mood he was idling the time doodling. When he awoke from his dream he found he had committed to paper the symbol of his thoughts—a heart pierced with an arrow—and so was born Greenbank "Red Heart."

GEORGE JOHNSTONE
5 Lynnbank Road, Calderstones
Liverpool, 18

Railway Nostalgia

Sir,

I should like, if I may, to comment briefly on the thoughts which must be uppermost in the minds of locomotive lovers today, and perhaps these may be of interest to others also.

After the grouping of 1923 of the former smaller companies, the great diversity of locomotive classes, each with its distinctive livery, in many instances the creation of a strongly individualistic mind, slowly but progressively began to disappear, and it is these classes that we remember with affection and pride today. Not all were completely successful in practice, nor would some of their qualities be acceptable to present-day requirements—for example the reputed high coal consumption of the North British Reid "Atlantics"—but each in its way formed a part of British locomotive history.

Nowadays standardisation is the avowed policy of the nationalised railway system and economy the keynote. We shall see no more the Cumming "Clans" on the Inverness line, McIntosh's blue express locomotives at Carlisle or North Eastern Raven "Atlantics" at York. Now utilitarian black predominates, and the glorious colours of a past era, maintained in such an exemplary manner, are but a memory.

The locomotive industry today is the inheritor of great traditions and a fascinating history. To its early designers it owes much, and it is fitting that we remember them.

DOUGLAS A. BROWN
Distribution Department
Plastics Division